DOCUMENT RESUME

ED 275 683 SP 028 332

AUTHOR Thonney, Patricia; Mapes, Martha C.
TITLE Be a Choosy Chewer. Nutrition Comes Alive. Level 2. Nutrition Educator's Guide and Work Sheets, Letters to Parents, Recipes. Revised Edition.
INSTITUTION State Univ. of New York, Ithaca. Nutritional Sciences Div. at Cornell Univ.
SPONS AGENCY New York State Dept. of Health, Albany.
PUB DATE 85
NOTE 109p.; For related documents, see SP 028 330-336.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Class Activities; *Eating Habits; *Grade 2; *Nutrition Instruction; Physical Health; Primary Education; Self Care Skills

ABSTRACT

This guide provides a nutrition education program for elementary school students that spans kindergarten through Grade 3 as well as providing activities for specific levels. Nutrition education objectives are stated for each grade level: (1) kindergarten--students will become familiar with and motivated to eat a variety of foods; (2) grade one--students will appreciate the importance of nutritious foods to promote growth; (3) grade two--students will recognize that choosing appropriate foods and being physically fit will benefit their health; and (4) grade three--students will understand that food choices are influenced by physical, cultural, and economic factors. An explanation is given of what the students should understand about the objective for each level. This guide focuses on Grade 2 activities that help students understand that: (1) many foods can be chosen for good snacks; (2) some snacks are more nutritious than others; and (3) exercising regularly contributes to physical fitness and good health. A supplement to this guide contains worksheets, letters for parents, and recipes. A Spanish translation of the letters for parents is provided. (JD)

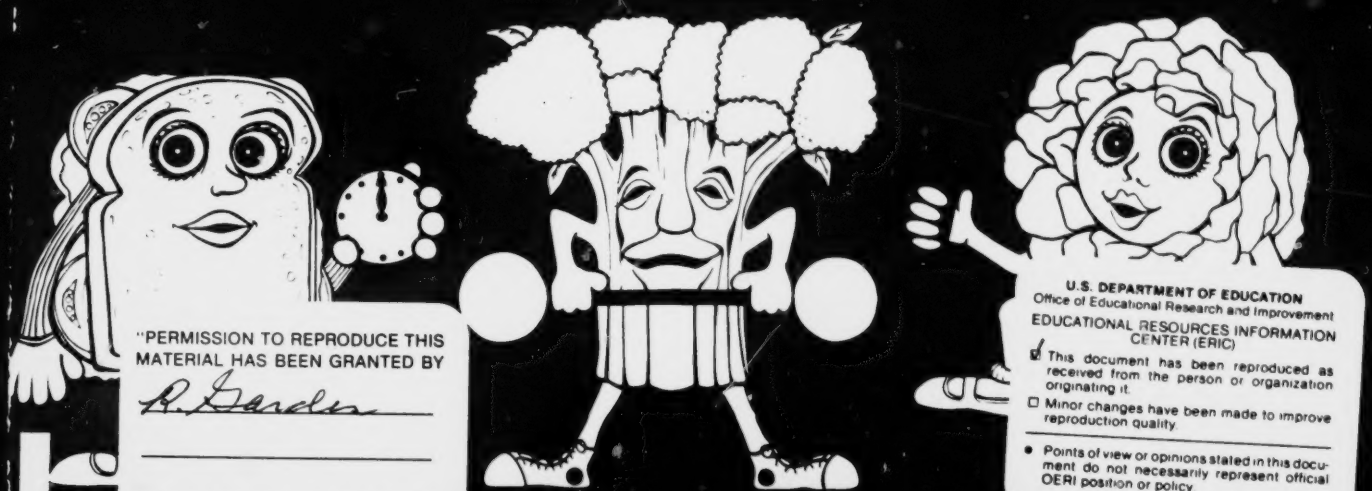
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

ED275683

Bel

Choosy Chewer



"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Gardner

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP028 332

NUTRITION COMES ALIVE

Nutrition Comes Alive

Level 2
Be a Choosy Chewer

Nutrition Educator's Guide

A Revision by
Patricia Thonney and Martha C. Mapes

Division of Nutritional Sciences, a Division of the New York State College of Human Ecology and the New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, New York 14853. 1985.

THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of The University (with years when terms expire)

1987	Martin C. Barrell, Chancellor, B.A., I.A., LL.B., LL.D.	Muttontown
1987	R. Carlos Carballada, Vice Chancellor, B.S., L.H.D.	Rochester
1986	Kenneth B. Clark, A.B., M.S., Ph.D., LL.D., L.H.D., D.Sc.	Hastings on Hudson
1989	Emlyn I. Griffith, A.B., J.D.	Rome
1984	Jorge L. Batista, B.A, J.D., LL.D.	Bronx
1986	Laura Bradley Chodos, B.A., M.A.	Vischer Ferry
1984	Louise P. Matteoni, B.A., M.A., Ph.D.	Bayside
1988	J. Edward Meyer, B.A., LL.B., L.H.D.	Chappaqua
1988	Willard A. Genrich, LL.B., L.H.D., LL.D., Litt.D., D.C.S., D.C.S. Sc.D.	Buffalo
1988	Floyd S. Linton, A.B., M.A., M.P.A., D.C.L.	Miller Place
1988	Salvatore J. Sclafani, B.S., M.D.	Staten Island
1989	Mimi Lieber, B.A., M.A.	Manhattan
1985	Shirley C. Brown, B.A., M.A., Ph.D.	Albany
1990	James W. McCabe, A.B., M.A.	Johnson City
1990	Norma Gluck, B.A., M.S.W.	Manhattan
1990	Thomas R. Frey, A.B., LL.B.	Rochester

President of The University and Commissioner of Education
Gordon M. Ambach

Executive Deputy Commissioner of Education
Robert J. Maurer

Deputy Commissioner for Elementary, Secondary and Continuing Education
Gerald L. Freeborne

Assistant Commissioner for General Education
Maria Ramirez

Director, Division of General Education
Charles J. Trupia

Chief, Bureau of Social Studies Education
Donald H. Bragaw

Assistant Commissioner for ESC Education Planning and Support Services
John Murphy

Director, Division for Program Development
Edward T. Lalor

Chief, Bureau of Curriculum Development
Dorothy M. Foley

Contents

Acknowledgments 5

Foreword: Developing Thinking Skills 7

Preface: Why Nutrition Education 9

Overview of Nutrition Education, Grades K-3 11

Nutrition Comes Alive: A Practical Classroom Tool 13

Some Key Nutrition Issues 17

- **Sugar** 17
- **Dental Health** 17
- **Fats** 17
- **Sodium** 18
- **Iron-Deficiency Anemia** 18
- **Calcium Concern** 19
- **Obesity** 19
- **Energy Balance** 20
- **Fiber** 20
- **Snacks**—A Nutritional Plus or Minus? 21
- **Children and Food Advertisements** 22

Using *Be a Choosy Chewer* 23

Nutrition Educator's Guide 29

- **Section 1** Snacking Discoveries 31
- **Section 2** Sensible Snacking 49
- **Section 3** Be Fit—Feel Good 67

Appendix 83

Acknowledgments

The authors are indebted to the many individuals who contributed their time and talents to the revision of **Nutrition Comes Alive**, Levels K-3. This revision is based on **Nutrition Comes Alive** written by Susan Nelson and Martha C. Mapes in 1980. Parts of Levels K and 1 were adapted from the **Early Childhood Nutrition Program** developed by Jill Randell and Christine Olson.

Without the convictions and support of Matilda Cuomo, this project would not have been possible. She realized a critical need for teaching all children in New York State about nutrition and health. As the First Lady of the state of New York and as a former elementary school teacher, Mrs. Cuomo is well acquainted with the needs of children and their parents.

Special thanks are extended to the elementary school teachers who reviewed the materials at various stages of development. Their comments helped to assure that the activities were appropriate for the grade level and integrated with other classroom subjects. The following teachers in Ithaca, New York, gave generously of their time: Ann Halpern, kindergarten, Central School; Nancy Hewitt, first grade, Caroline School; Roberta Wallitt, second grade, Central School; and Susan Warner, third grade, Northeast School.

Extensive conversations with Dr. Isobel Contento, Teachers College, Columbia University, and Dr. Lorraine Shafer, Executive Director, Dairy, Food & Nutrition Council, Inc., helped to redefine the focus of the materials by expanding the initial concepts and objectives of **Nutrition Comes Alive**. Both encouraged the development of activities that would foster thinking skills.

Dr. Contento provided extensive guidance for development of evaluation tools. Her knowledge and enthusiasm helped to assure that the activities reflect contemporary nutrition issues.

Many faculty in the Division of Nutritional Sciences provided invaluable suggestions during development of specific activities. We are particularly indebted to Dr. Christine Olson for her assistance in defining the objectives and understandings and her constructive review of many of the activities.

A special thank you is extended to Nilda Tirado, EFNEP program leader in New York City, for translating the letters to parents into Spanish.

The creative skill of the staff of Cornell Media Services enabled the educational materials to be transformed into attractive publications. The consistency and dedication of Trudie Calvert, editor, helped immensely in facilitating the production of the materials.

We are grateful to Commissioner David Axelrod of the New York State Department of Health and Commissioner Gordon Ambach of the New York State Department of Education for supporting this project.

Foreword

Developing Thinking Skills

For children to develop good habits for nutritional well-being, we must help them learn to make intelligent food choices. Making intelligent choices depends on their ability to analyze and evaluate foods within the context of their world, which includes fast-food restaurants, vending machines, and convenience foods. Rather than ignore the influence of such modern-day phenomena, we must teach children to evaluate the foods available from such sources so they can make appropriate selections. As stated by Isobel Contento, Teachers College, Columbia University:

> Today's consumer or learner needs, on the cognitive level, to know how to select from the vast array of foods in the average supermarket those foods he or she needs for optimal health in today's context. He or she also needs to know how to be discriminating about dietary advice that comes, sought and unsought, from a variety of unequally reliable sources such as popular books, advertising, packaging labels, newspapers, and materials from food industry sources or "health" food stores.
>
> On an affective level, the learner needs to learn self restraint—particularly in light of the sedentary life-styles of most Americans, and to develop attitudes toward food selection that are conducive to long-term health.*

Developing the thinking skills of our students seems the most effective way to proceed. If we use practical examples to help students sort out the choices available and identify various nutritional options, we are helping them face this complex world of food and eating. Therefore it would seem more important for students to be able to differentiate between opinion and fact when viewing advertisements than to be able to recite the nutrients in a given food. It may be more important for them to be able to search out and decipher the key nutritional information on a label than to name food groups important to health. If overnutrition is a problem involving excess fat, sugar, salt, or total calories, students need to be able to think about how to make modifications in food choices and ingredients within their own family and cultural traditions.

In other words, the focus of teaching should shift from transferring information to the student to processing information by the student; at least, we should strive for a better balance. Teachers can help provide practical situations so students can use their thinking skills to take increasing personal responsibility for their food choices. This curriculum guide is offered as a way to help make this goal possible.

*Isobel Contento, "Thinking about Nutrition Education: What to Teach, How to Teach It, and What to Measure," *Teachers College Record* 81 (Summer 1980):422-23.

Preface

Why Nutrition Education

Our diets are shaped early in our lives by emotional, cultural, and social forces, as well as by the availability of certain foods. Traditions, food habits of parents and friends, and food advertising are some factors that influence American diets. Bombarded by numerous options, children should not be expected automatically to select nutritious foods. They must learn how to make nutritious choices from the array of foods available.

The ultimate goal of nutrition education is to provide knowledge and to foster skills that will promote nutritionally sound eating practices, which in turn contribute to an individual's nutritional well-being and overall health. Nutrition education should begin when children are young and in the process of developing their eating habits. Early positive experiences with nutritious foods help create a foundation for lifelong eating habits, nutritional awareness, and attitudes that facilitate good health.

Overview of Nutrition Education, Grades K-3

For each grade level one major nutrition objective is supported by several understandings. The suggested activities and work sheets are intended to help students achieve the understandings and objectives.

Grade Level	Objective/Understandings
Kindergarten	Objective: Students will become familiar with and motivated to eat a variety of nutritious foods. Understandings: 1. Food is something to eat. It has distinctive textures, shapes, and smells. 2. There are many different kinds of nutritious foods. 3. Some foods are better than others for good health.
Grade 1	Objective: Students will appreciate the importance of nutritious foods to promote growth. Understandings: 1. All living things need food for growth and energy. 2. Plants and animals provide us with food. 3. Certain foods are especially important for children's growth.
Grade 2	Objective: Students will recognize that choosing appropriate foods and being physically fit will benefit their health. Understandings: 1. There are many foods that can be chosen for good snacks. 2. Some snack choices are more nutritious than other choices. 3. Exercising regularly contributes to physical fitness and good health.
Grade 3	Objective: Students will understand that food choices are influenced by physical, cultural, and economic factors. Understandings: 1. Sensory perceptions influence food choices. 2. Food choices take place within the context of immediate family, social, and community groupings. 3. Advertising, especially on television, influences food choices.

Nutrition Comes Alive

A Practical Classroom Tool

Nutrition Comes Alive is a nutrition education program for elementary school students. The guide for each grade level contains information relevant to the entire span K to 3 as well as activities for the specific level. The material for each grade level is intended to help you provide students with a multitude of learning opportunities. The activities, designed to stimulate student interest, are presented in an appealing, easy-to-use format. Special features of the K–3 guides are detailed below.

Provides Flexibility

The guides encourage flexibility and creativity in the classroom. They are not a prescription for teaching. Instead, a wide range of possible activities is presented so that you can select and structure learning experiences to meet the needs of your students. You may schedule nutrition education activities throughout the school year or introduce them as units.

Focuses on Today's Concerns

With changes in lifestyles and eating patterns over the past fifty years, Americans are more likely to be affected by dietary excesses than by deficiencies. To help children make wise food choices within the context of our modern society, nutrition education must include current nutrition-related health concerns. Consequently, the material in the guides reflects such contemporary issues as the selection of nutritious snacks, the importance of physical activity for fitness, the effect of advertising on food selection, and the desirability of limiting dietary intake of fat, sugar, salt, and calories.

Integrates Activities

A key feature of the materials is that they may be integrated with other established academic subjects. Nutrition does not have to be taught as an isolated subject. It is a recognized part of most science, health, and social studies textbooks. The upper right-hand corner of each activity sheet indicates the subject area into which the activities best fit, for example, language arts, math, social studies, science, music and art, or health and fitness. Check through the activity sheets before planning your schedule so you will know what activities best integrate with other subjects.

Promotes Active Learning

The materials engage students in active learning. Such "hands-on" activities as tasting and preparing foods, identifying personal food preferences and habits, determining ingredients in different foods, and measuring growth all stimulate learning by directly involving students.

Participating in these activities gives students a chance to think, feel, and act.

Includes Motivators

Special motivators, such as puppets, songs, illustrations, and catchy titles or slogans entice students to learn about nutrition. The guides contain many attractive and exciting motivators that will appeal to students on both affective and cognitive levels.

Evaluates Learning

Like other components of the school curriculum, nutrition education must be evaluated to determine whether the desired outcomes have been produced. It is not easy to evaluate whether the goal of promoting behavior that fosters good health has been achieved. How students apply knowledge to nutrition and health-related issues is even more important than their increase in knowledge. Therefore, whenever possible, the evaluation should include ways to measure changes in underlying attitudes and in behavior. To facilitate this evaluation, the teaching materials in the nutrition education guides provide various tools for monitoring students' nutrition learning.

Observation: Observing students in the classroom enables you to evaluate changes in their behavior. For example, during sociodramatic play, do students serve milk rather than soda? When cooking, do students demonstrate that they know how to use new ingredients and utensils? Do they bring more nutritious foods for snacks and lunches than they did before they studied nutrition?

Verbal Wrap-Up: Students should summarize what they learned from a particular lesson in their own words. What did they learn about snacks? What foods are most nutritious for snacks? Such a wrap-up gives students a sense of accomplishment and helps them remember key points.

Application of Learning: You can ask students to apply their knowledge or skills in new situations. After learning to read labels, they could be asked to select the food lowest in fat or the cereal with the least sugar from among several products. They could use their knowledge about nutritious foods to plan a class picnic, to launch an advertising campaign in the cafeteria, or to prepare a new vegetable for dinner at home.

Repetition: Repeating certain classroom activities or work sheets will show whether students have changed their attitudes or values about particular issues. Are students better able to separate opinions from facts after studying food advertising?

Parent Feedback: By participating in conferences, parents can provide additional evaluation information. Do parents report that their children are requesting new vegetables for meals? Are the children more eager to brush their teeth at home? Such informal information can help you judge whether the nutrition program had a desirable impact.

Encourages Parent Involvement

New ideas in any subject are always learned better if they are reinforced in the "real world." Home and family are important parts of a child's world. Parents have a strong interest in their children's health and growth, and parents also control what foods are available in the home. By working together, parents and teachers can double their impact on children's eating practices.

You can encourage parents to participate in many different classroom activities. For example, cooking activities usually run more smoothly when an extra adult helps. Or a parent with special expertise might talk to the class or demonstrate a skill. Parents can also be invited to attend open houses or special events or to go on class trips.

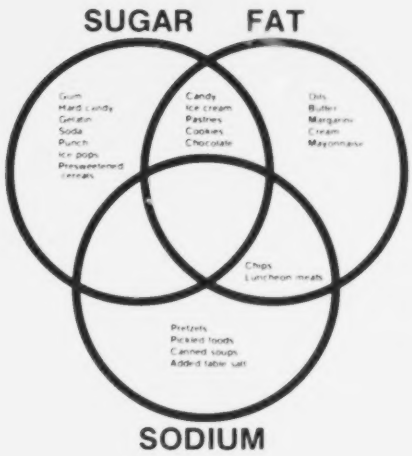
Another way to involve parents is by making a special effort to let them know what is happening in the classroom. You can share information about your class nutrition projects, and students can take home their work sheets, stories, recipes, snack information, and letters that are included in the units.

Encourages Food-Service Involvement

The food-service personnel in your school may assist you with different food-related activities. They may be able to provide ingredients, equipment, utensils, and advice about foods and cooking safety. If you want any special help from food-service personnel, be sure to plan ahead so you can ask them well in advance of the time you need their help.

Ask your food-service staff to give the class a tour of the kitchen, or ask whether a class cooking activity could be done in the kitchen. Invite a staff member to demonstrate a simple food preparation technique. The possibilities are endless. When the classroom and cafeteria are brought together, they can maximize their impact on children's food habits.

Some Key Nutrition Issues



Sugar

Sugars are natural components of some foods. Fruits and some vegetables contain sugars, along with important vitamins, minerals, and fiber. Unlike fruits and vegetables, however, many food products contain large amounts of added sugar (sucrose, dextrose, honey, fructose) and contribute little more than kilocalories. When these "empty-calorie" foods and beverages replace more nutritious choices, getting enough nutrients without too many calories may be a problem. Even the increasing use of artificial sweeteners does not solve the problem of soft drinks replacing a more nutritious choice such as milk. Foods such as sugared milk products, ice cream, custards, and puddings can be considered "good" in moderation because they contain protein and calcium. But eating too many sugary products may contribute to obesity and is a major factor in tooth decay.

Dental Health

Not only are dental problems widespread in the United States, but professional dental care is expensive. Therefore it is important to begin good diet and health habits early in life.

Sugar (sucrose) is the preferred food of cavity-causing oral bacteria. When sugar is available, the bacteria eat it, forming acid. The acid weakens the tooth structure and promotes tooth decay. More critical than the amount of sugar ingested at any one time are the frequency and duration that sugar is available to oral bacteria.

Sugary snacks are of particular concern because they increase the frequency of sugar exposure and may also increase the duration of exposure. For example, soft drinks that are sipped and sticky candies that adhere to the tooth surface keep sugar available to oral bacteria for extended periods of time, especially if they are eaten as snacks. When sweets are eaten with meals, other foods tend to buffer the acid formed and also assist in removing sugar from the teeth.

Fats

Fats provide kilocalories and essential fatty acids. But only a small amount of dietary fat supplies all the essential fatty acids. A recent concern is that Americans derive too many of their daily kilocalories from fat. Not only may this high fat consumption lead to obesity, but one class of fats appears to be an important factor in heart disease.

Studies have shown that saturated fat, found mainly in animal products, tends to contribute to heart disease, whereas unsaturated fat may not. Cholesterol, a substance found only in animal fat, has been implicated in heart disease. The primary source of unsaturated fat is safflower, sunflower, corn, and soybean oils. Coconut and palm oils contain higher amounts of saturated fats.

In light of these findings, it has been suggested that people decrease the amount of saturated fat they eat. It has been further recommended that Americans decrease their total fat consumption from the present level of about 40 percent of total calories to 30 percent.

Sodium

Hypertension or high blood pressure can be a nutrition-related health problem. Large intakes of sodium, mostly in the form of common table salt, are implicated in causing high blood pressure in susceptible persons. Lowering sodium intake and achieving reasonable weight help control hypertension.

Many advertised snack foods are very high in sodium. Potato chips, salted pretzels, and some crackers are examples of high-sodium foods. It is encouraging that new low-sodium forms of these favorite snacks are now on the market. Canned vegetables without added salt and low-salt cheeses are also now available. Cutting down on sodium is one way to build better food patterns for the future.

Iron-Deficiency Anemia

A recent survey found that 61 percent of children in the United States were receiving less than the recommended dietary allowance for iron. A continual low iron intake increases children's risk of developing iron-deficiency anemia.

Anemia is caused by a lack of dietary iron needed to form hemoglobin, a compound in the blood that carries oxygen to the cells. Symptoms of anemia include fatigue, weakness, irritability, and pallor.

Meat, poultry, dried beans, and dark green vegetables can help meet the iron requirement. In addition, unsweetened fortified cereals, whole and enriched breads, and dried fruits are iron-rich foods that make appealing snacks. Since vitamin C increases the absorption of iron, citrus fruits and juices are good companions to high-iron meals and snacks.

Calcium Concern

Bone health is a key concern of both youth and adults. Interest has always focused on supplying necessary calcium and vitamin D for the formation of bone in growing infants and children. Increasing concern about osteoporosis has caused us to search out information about maintaining bone health during our mature years.

Our bones are in a state of constant flux, serving as banks in which calcium can be deposited and withdrawn. Although 99 percent of the body's calcium is in the bone, the other 1 percent circulates in the blood and is vitally important for normal nerve transmission, muscle contraction, heart function, and blood clotting. When this small but critical amount falls below a certain concentration, the bones release some of their calcium.

Low intake of calcium-rich foods during the adult years compromises bone health. Adults need calcium just as much as growing children do. Prolonged deficiency of calcium through the adult years may increase the risk of osteoporosis, a disease seen particularly in postmenopausal women and characterized by weak and fragile bones.

Since bone mass reaches its maximum when a person is about the age of 35 and declines as part of the aging process thereafter, people of all ages need to be aware of their intake of milk and such other sources of calcium as leafy green vegetables, broccoli, and fish with edible bones such as sardines, canned salmon, and fresh smelt.

Because calcium is important throughout life, students should establish habits of calcium consumption that they will follow throughout their lives.

Obesity

Obesity is a major health problem in the United States today, for both adults and children. Why is excessive weight a health concern? In adults, the prevalence of diabetes, hypertension (high blood pressure), and atherosclerosis (heart disease) increases with obesity. The concern for children is that obesity will persist into adulthood and result in health problems. Overweight or obese children also may be troubled by emotional and social problems.

What can be done? All children can be encouraged to be very active all year round. Extra attention should be paid to children with weight problems, to be sure that they find an activity they can do and enjoy—and that they continue to do it. Parents and children should learn about the problems of overeating. Good habits can be developed early. Many families are concerned about wasting food at the dinner table. Food waste, however, starts in purchasing and preparation. A good eater is a moderate eater, not a big eater.

Energy Balance

Kilocalories (energy) are needed to support life and growth. Eating too few kilocalories can result in poor health and, in children, can limit growth. On the other hand, eating more kilocalories than required can also result in poor health. Overweight, and especially obesity, can increase the risk of developing many health problems. The amount of kilocalories that a person needs for health depends on the amount of energy that he or she uses for basic body processes and for physical activity.

Carbohydrates, proteins, fats, and alcohol are the food components that give us kilocalories. Carbohydrates, proteins, and fats are essential nutrients; alcohol is not. But there are other essential nutrients that we must eat to be healthy: minerals, vitamins, and water. Although these nutrients do not supply kilocalories, they can be found in many foods that do. Each class of nutrients is important for a variety of body functions. Therefore, the foods in our daily diet must be carefully selected to supply all the essential nutrients without exceeding our kilocalorie requirements.

Energy = **Kilocalories**
Kilocalories = **Calories**

What is a kilocalorie? The energy value of a food is expressed as a unit of heat, a kilocalorie. This term is more correct than Calorie, or calorie, which is often used instead.

A kilocalorie (kcal) represents the amount of heat required to raise the temperature of one kilogram of water one degree Centigrade. Another way to think of this amount of energy or heat is to realize that one large apple, which contains about 100 kcal, provides enough heat to raise the temperature of slightly over four cups of water from 0 degrees C (freezing) to 100 degrees C (boiling). Four and a half cups of shredded cabbage or one tablespoon of peanut butter has a similar energy potential.

Fiber

The fiber found in our diets is not just one compound but a complex grouping of many substances found in cell walls of plants. These include cellulose, hemicellulose, and pectins as well as lignin, which is not a carbohydrate. In simple terms, dietary fiber refers to components of plant cells that the body does not digest and absorb.

Most nutritionists agree that dietary fiber is important, but many of the benefits that have been claimed have not been proved. At the present time, the most clearly established benefit of dietary fiber is that it helps to relieve or prevent constipation. There is some evidence that it is beneficial in preventing or treating diverticular disease. It has also been suggested that fiber may reduce the risk of cancer of the colon and heart disease and help control diabetes and obesity.

But although fiber is important in the diet, just because some is good, a lot is not necessarily better. Large doses of purified fibers may increase the excretion of some minerals, but it is unlikely that a mineral deficiency will develop if moderate amounts of fiber are eaten as part of a normal diet.

The best advice is to increase dietary fiber by eating more fresh fruits and vegetables, whole-grain bread and cereal products, beans, and nuts. With this approach you are not likely to consume excess fiber and you will get a variety of types of fiber, each of which might have a different benefit. In addition, these foods supply vitamins and minerals.

Snacks—A Nutritional Plus or Minus?

Many people tend to think of between-meal snacks as "junk" food or "empty-calorie" food, but it is not necessarily true. The problem is the candies, soft drinks, cookies, and potato chips that are often eaten exclusively for snacks in place of nutritious foods. These foods offer few nutrients but are loaded with excessive calories. By learning to choose snacks carefully, children can avoid overly sweet or salty and high-fat snacks in favor of more nutritious fruits, vegetables, grain products, and milk. Nutritious snacks actually improve the nutritional quality of children's diets.

Children and Food Advertisements

Every day we are bombarded by food ads through newspapers, magazines, direct-mail ads, radio, and, of course, television. Children watch an average of 27.5 hours of television per week and more than 20,000 commercials per year. It has been estimated that 60 percent of all commercials aimed at children are for food, and unfortunately, the majority are nonnutritious foods and food products. With this exposure, the food ads undoubtedly have a tremendous impact on the way children think about food. It is not a simple problem to deal with, but through guidance from parents and teachers, children can learn to question what they see on television and become aware of the selling intent of ads. Repeated positive experiences with nutritious foods can help children learn to desire and choose healthy foods.

Using *Be a Choosy Chewer*

Helping students be choosy chewers when selecting snacks is the task at hand. This task can be fun when you introduce two main characters: a modern Grandma Hubbard and her dog Puddles. Their song sets the stage.

Does your stomach feel so low
You think it touches your shoes?
It's time to fill it up,
But what on earth will you choose?

Grandma has a cupboard
And its doors will open wide.
It's magic!
And it's full of food surprises inside.

Sure, eating is delicious,
But I'll give you a clue:
It can also be nutritious
When you choose what you chew.

These main characters can help the class understand:

1. There are many foods that can be chosen for good snacks.
2. Some snack choices are more nutritious then other choices.
3. Exercising regularly contributes to physical fitness and good health.

The key to helping youth see that food and fitness go hand in hand is to present the message in a light and happy way. Further, involving children in their own learning can make a big difference in a food habit like snacking.

Integrating Activities

Nutrition is not separate from everyday life. It need not be a separate subject in your classroom.

Children buy snacks at the corner store and often watch the clock for lunchtime and snacktime. **Math** is a natural for teaching about money and time.

We hear about snack foods every day of our lives on TV, on the radio, and from friends. We express our delight or our disappointment with the taste, smell, and appearance of food. It is part of **Language Arts**.

Children are fascinated by astronauts, admiring of early colonists and Native American Indians. **Social Studies** can focus on the heritage of our foods, as well as on modern freeze-dried foods. Preparing and tasting ethnic foods can help children understand others and feel more comfortable with themselves.

Food has immediate appeal to all the senses, arouses curiosity, and provides experience for observing, experimenting, and discovering with **Science**.

Constructing a snack stand or dressing up as Super Broccoli or a Singing Carrot helps develop originality and uses **Art** as a means of nutrition education.

Fitness has a new dimension when it combines movement with math and other subject areas.

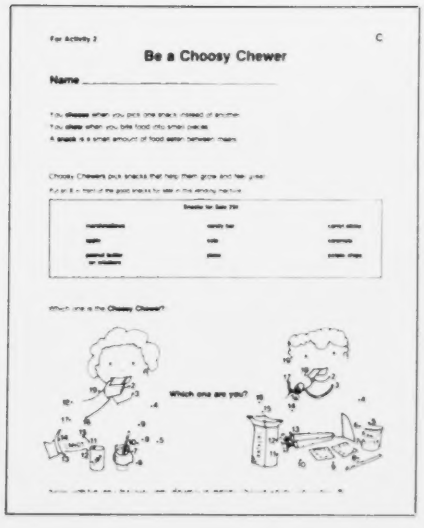
Think of all the possibilities for learning that are associated with food. Move into an integrated classroom approach. A delightful time is ahead when you let Grandma and Puddles help your class learn how to become choosy chewers.

Nutrition Educator's Guide

Be a Choosy Chewer contains three sections of activities for the classroom. The understanding for each section is stated on the section divider.

In Section 1 students examine their snacking patterns and become familiar with the variety of nutritious snack choices. As they learn to distinguish between nutritious and less nutritious choices in Section 2, students become aware of factors such as television commercials that can influence their choices. In Section 3 students learn about their muscles and are encouraged to make physical activity part of their daily routine.

To help you plan each lesson, advance preparation is listed first on each activity sheet; preparation needed for additional activities is not included. Advance preparation includes duplicating work sheets, as well as collecting foods, books, or equipment that are needed for the activities.


Be a Choosy Chewer

Name _____

Which one is the Choosy Chewer?

Which one are you?

Student Work Sheets

Be a Choosy Chewer contains work sheets that you can photocopy or make into dittos for distribution to the class. Suggestions for using the work sheets are found on the teacher activity sheets. The work sheets are in a separate booklet.

Bulletin Board Displays

Following the Magic Cupboard theme, an ever-changing bulletin board Snack Cupboard might be a useful motivator for the class. Cupboard and doors can be made out of construction paper, and the space can be used to

- feature a "snack of the week,"
- display the colorful posters provided in the Level 2 packet,
- post snack recipes, or
- assemble pictures of fruits and vegetables that might be investigated as snacks.

The space might also be used to feature ethnic snacks that may be favorites of certain cultures or communities near or far.

Stimulating Increased Physical Activity

Overweight and obesity are growing problems for children and adolescents. Becoming physically active and learning individual flexibility and endurance skills can build new active habits and lifestyles.

Try doing your part in the classroom to help children adopt new attitudes about vigorous exercise rather than delegating this responsibility completely to the physical education teacher. After standing in place by their desks and doing stretching exercises, students will return to their work with more enthusiasm. Taping music and playing it for exercise time makes it more fun and establishes a rhythm. Your students may enjoy bringing tapes to share. Even adults groan at first and then later say how much they appreciated an exercise break.

Playground time can also be used for team games or relays. Laying out an exercise trail can be a good way to involve your students in creating their own fitness routines and learning a little math. But the key is role modeling by the teacher. A positive attitude about fitness and exercise is contagious.

Supplementary Resources

An audiotape of "The Magic Cupboard" story with sing-along dialogue is available to enhance your classroom activities. In addition, a videotape of 19 30-second spot television announcements can be used to introduce Grandma and Puddles and to illustrate positive television messages (see Resources, Section 1).

Letters to Parents

To help involve parents in their children's learning, ***Be a Choosy Chewer*** includes letters that can be photocopied and sent home with the students. The letters give parents nutrition information, recipes, and activities to do with their children to complement the activities in the classroom. The letters are in the booklet with the work sheets.

Evaluation

The last teacher activity sheet in each section contains activities to help you evaluate what the students have learned. Helping students verbalize what they have learned and having them demonstrate increased familiarity with and willingness to choose nutritious snacks are vital.

Resources

Nutrition Education Programs

Creative Food Experiences for Children. M. T. Goodwin and G. Pollen. 1974. Available from CSPI, 1755 S St. NW, Washington, DC 20009.

This excellent teaching guide includes basic nutrition concepts, nutritional values of different foods, and nutrition activities, resource materials, and recipes.

Cookbooks for Children

A Child's Cookbook. B. Beitch, T. Harms, T. Wallace, and G. Wallace. 1981. Available from 656 Terra California Drive #3, Walnut Creek, CA 94595.

The kit includes a cookbook and teacher guide. Single-portion recipes for home and school are provided in an illustrated, easy-to-use format. Many ethnic recipes are included.

Pictures of Foods

The Buying Guide for Fresh Fruits, Vegetables, Herbs, and Nuts. Educational Department, Blue Goose, Inc., P.O. Box 46, Fullerton, CA 92632.

An excellent source for color photographs of fruits and vegetables.

Food Models. National Dairy Council. See Appendix 1 for a listing of local Dairy Council offices.

Life-size color photographs of 146 foods can be used in a variety of teaching situations. Nutrient values and their contribution to the U.S. RDA are printed on the back of each model.

Basic Nutrition Information

Nutrition: Concepts and Controversies. E. M. Hamilton, E. N. Whitney, F. S. Sizer. St. Paul, MN: West Publishing Company. 3d ed. 1985.

This introductory textbook presents basic nutrition concepts and current issues in an easy-to-read, personal style. Many informative tables, charts, and drawings are included within each chapter. Each chapter concludes with an in-depth discussion of a controversial issue such as diet and heart disease, diets for athletes, and the effect of sugar on behavior of children. An extensive appendix includes a table of food composition and many additional facts.

Jane Brody's Nutrition Book. J. Brody. New York: Bantam Books. 1982.

Written for the general public, this book provides information on a number of current issues in nutrition. The dietary guidelines, cholesterol, fiber, sugar, food additives, food labels, sodium, fad diets, and fast-food eating are among the many topics discussed in 27 chapters.

The National Children and Youth Fitness Study 1980: A Summary of Findings.
McGinnis, J. M. et al. Office of Disease Prevention and Health Promotion, Department of Health and Human Services, Washington, DC 20201. Write to Dr. Robert Gold at this address for a free copy.

A rigorously controlled mass testing study of fitness among 8,800 children and youth in grades 5-12 from 140 schools in 19 states in the United States has implications for health promotion objectives for the nation for the year 1990. Findings were based on weekly time spent in physical activity, effect of seasonality on physical activity, participation in community organizations, and pursuit of activities that may readily be carried into adulthood.

Nutritive Value of Foods. Home and Garden bulletin 72. U.S. Department of Agriculture. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Revised 1985.

This bulletin contains nutritive values of commonly used foods. Values for fat, fatty acids, cholesterol, carbohydrate, calcium, phosphorus, iron, potassium,vitamin A, thiamin, riboflavin, niacin, ascorbic acid, and sodium are included.

Cornell Cooperative Extension. Addresses of local offices are listed in Appendix 2.

Adult and 4-H agents, serving as professional home economists at the county level, are part of Cornell Cooperative Extension statewide and work closely with faculty and staff in the Division of Nutritional Sciences at Cornell University to promote nutrition and health.

Youth programming includes a large 4-H youth development effort, a part of which is work with teachers in the schools. **Nutrition Comes Alive**, K-6, and **Make Up Your Own Mind about Alcohol**, 5-6, are two special nutrition resources developed by Cornell Cooperative Extension for school use.

Consult your local Cornell Cooperative Extension office for details about workshops and current resources.

National Dairy Council. Addresses of local offices in New York State are listed in the appendix.

The National Dairy Council offers extensive and excellent nutrition education resources for the classroom. Reference to its annual catalog will help you select appropriate resources to match the ability levels of your students.

Note: Specific resources needed for activities in each section are listed on the back of the appropriate section dividers. You may need to order films well in advance of when they are needed.

Nutrition Educator's Guide

Objective for Level 2

Students will recognize that choosing appropriate foods and being physically fit will benefit their health.

Section 1

Be a Choosy Chewer

Snacking Discoveries

Understanding:

There are many foods that
can be chosen for good snacks.

Before You Start

A modern, zippy Grandma Hubbard and her dog Puddles can help lead students through a series of snacking adventures as they learn to choose what they chew.

The zany characters that emerge from Grandma's cupboard reinforce the idea that snack choices are important with such messages as

THINK WHAT YOU DRINK
SNACKS MAKE A DIFFERENCE
EAT FRUITS EVERY DAY

Use the colorful posters to make these food characters come alive for your students.

Build familiarity with new snack foods that are crisp, juicy, and refreshing. Because vitamins A and C, calcium, and iron are low or missing in many common snack foods, they are given special emphasis. Children who learn to enjoy foods high in these nutrients are more likely to choose them for snacks.

A letter to parents gives them an opportunity to share what's going on in class. Letters may also encourage them to purchase and prepare the nutritious snacks used in the classroom.

Activities	Subject
1. What Is a Snack?	Language Arts
2. My Choice	Language Arts, Art
3. My Snacking Style	Math
4. Invisible Goodness	Science, Language Arts
5. Food Energy Makes a Difference	Science, Fitness
6. Name That Snack	Language Arts
7. Add It Up!	Math
8. Evaluation	Language Arts

Section 1

Be a Choosy Chewer

Resources

Read-Aloud Books

My Garden Grows. A. A. Watson. New York: Viking Press, 1962.

The day-to-day joy of growing a garden is depicted through the eyes of a child, in simple words and pictures. The changes from seeds to ready-to-eat vegetables are detailed like a great adventure story. Beets, carrots, broccoli, cabbage, cucumbers, lettuce, onions, peas, corn, beans, eggplant, peppers, potatoes, and tomatoes fill the garden.

Bunny Rabbit Rebus. D. A. Adler. London: Hamish Hamilton, 1984.

This delightful rebus story is about a Mother Rabbit and her involved search for lettuce and carrots to satisfy Little Rabbit's hunger. The book contains a glossary of the pictures that are substituted for words or parts of words in the story. A nonrebus version is included.

Grocery Store Botany. J. E. Rahn. New York: Atheneum, 1974.

Foods we eat from flowering plants are categorized as roots, stems, leaves, flowers, fruits, and seeds. One chapter discusses foods that come from plants without flowers. Each chapter contains anatomical details complemented by simple line drawings. By doing the 25 simple experiments the reader learns how the food-storing parts of plants work.

Old MacDonald Had an Apartment House. J. Barrett. New York: Atheneum, An Aladdin Book, 1969.

It all started with cutting down a hedge to give light to a single tomato plant. Before long Old MacDonald was tending a multitude of fruits and vegetables plus chickens, cows, and other animals. Join the hilarious fun as Old MacDonald starts a very unusual farm—a farm in the city, in an apartment house!

Videotape

Nutrition Comes Alive: 30-second Puppet Messages
Ithaca, NY: Division of Nutritional Sciences, 1980.

Contact local BOCES for free loan.
Available from Audio Visual Resource Center, 8 Research Park, Cornell University, Ithaca, NY 14850. $20.00 rental.

A series of 19 30-second spot announcements designed for broadcast on commercial and/or public television. Featuring the characters Grandma and Puddles, the creative messages can be used in the classroom to motivate students to choose nutritious foods.

Audiotape

The Magic Cupboard. Ithaca, NY: Division of Nutritional Sciences, 1980.

Contact local BOCES for free loan.
Available from Audio Visual Resource Center, 8 Research Park, Cornell University, Ithaca, NY 14850. $10.00 purchase.

The sing-along dialogue on this 13-minute tape will have students following the example of Grandma and her dog Puddles to be a choosy chewer. The messages encourage children to choose nutritious snacks. Students can create their own songs to the music on the reverse side of the tape.

What Is a Snack

Advance Preparation

Have a small group of students construct a snack stoplight from three shoe boxes. Cut a long slit in one side of each box. Glue a green, yellow, or red circle on one end of each box. Stack the boxes to create a stoplight. Or glue the colored circles to three large envelopes and tack them to the bulletin board.

Collect Dairy Council food model cards or cut up food slips (see Appendix 4).

Copy 3-page story A.

Copy letter B to parents.

A

The Magic Cupboard.

Chapter 1

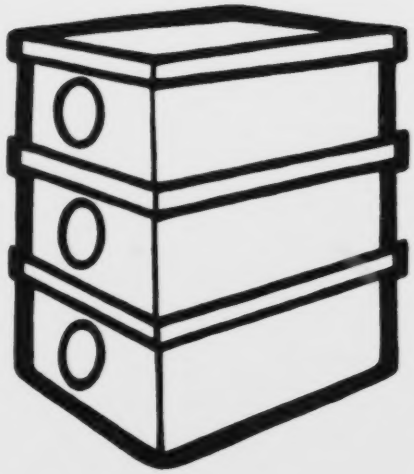
A Snack Is . . .

Write these two phrases on the chalkboard:

To me "snack" means _____.

I snack because _____.

Instruct the students to copy and complete each sentence in their own words. Discuss the responses. The word "snack" is used to identify any food or beverage consumed between regular meals (breakfast, lunch, dinner). Students may associate specific foods with the word "snack" rather than the general definition. Encourage all responses, regardless of whether they are good or poor snack choices.



A Snacking Stoplight

Use the game Snack Stoplight to find out what your students eat for snacks and how they presently rate these foods. This pretest will help direct your teaching and provide data for comparison at the end of the unit.

Locate a set of Dairy Council food model cards. Select foods often used as snacks from the list below and give each student one food model card showing that food. If food models are not available, copy the list in the appendix and cut into strips, giving each student one slip.

American cheese	Milk
Apple	Milk chocolate bar
Bagel	Orange
Banana	Popcorn
Beef taco	Potato chips
Broccoli pieces	Raisins
Carrot sticks	Salted peanuts
Cheese pizza	Soft drink
Chocolate pudding	Sponge cake
Devil's-food cake	Sugar cookie
Danish pastry	Vanilla ice cream
Dried apricots	Watermelon
Grapes	Yogurt
Low-fat milk	

Explain that the foods named on the cards are often eaten for snacks. Have the students take turns putting their food models or slips of paper into the section of the stoplight where they think the food belongs—green means the food is a good snack choice, red means it is not, and yellow means caution: the food is okay to choose once in a while. Students may have to guess how to rate these foods. Do not discuss the merit of particular snack foods at this time.

Choose volunteers to help tally the contents of the stoplight. Help the students create a chart for recording the information. Save this record for later comparison. Repeating the game later will help you evaluate your students' progress.

Explain that the students will be doing more activities that will help them decide if they made good choices.

(continued)

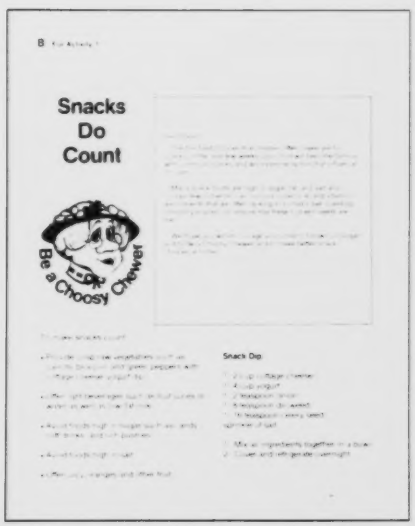
They are going to learn how to be "choosy chewers."

You need to plan carefully how to feature these foods during snack of the week or other food activities and discussions in the lessons ahead to allow students time to become more familiar with snack foods so the post-test will show progress. The Magic Cupboard will start you off.

The Magic Cupboard

Provide each student with a copy of story A. Have them follow along as you read the story. Create a vocabulary list of any new or unfamiliar words in the story. Key words to discuss could include "choose," "nutritious," and "snack." Students will learn more about each word in subsequent activities.

After you have read the story, ask the students to name all of the snacks that were mentioned (orange, green pepper, carrot, raisins, celery). Have them describe how each looks and tastes. You might want to show examples of the foods or use the Dairy Council food models. You could also discuss how the foods are grown. Students can color the three pictures on the story pages.



Letter to Parents

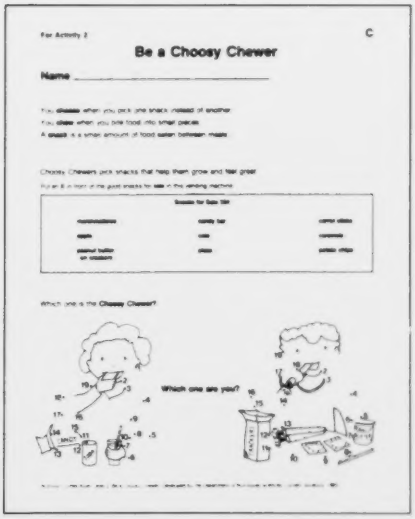
To help involve parents in their children's learning, give each student a copy of letter B to take home. The letter tells parents that the class will be learning about choosing nutritious snacks and keeping fit. It also gives them information on how to encourage healthful snacking habits.

My Choice

Advance Preparation

Start a snack cupboard on your bulletin board.

Copy work sheet C.



Everyday Choices

Explain to the students what it means to make a choice. Making a choice is being able to decide between two or more options. You make decisions every day by choosing what to wear, who to play with, and what to do after school. Your choice is your personal decision.

Questions for conversation:

—Do your choices differ from those of your friends? Why?

—Do your parents sometimes make choices for you? Why?

—What other people influence your choices?

—Have you ever tried to influence a friend's choice? Why?

Choosy Chewers

Have the students complete work sheet C. Discuss ways they can be choosier chewers than they are now.

Foods from A to Z

To illustrate the wide variety of food choices, help the students create a wall mural using each letter of the alphabet.

Have the class go through the letters of the alphabet, generating a list of foods. You could create a guessing game by giving clues if the students have difficulty thinking of foods. Examples for each letter are listed on the reverse side of this activity sheet.

It is difficult to identify common foods for the letters Q, U, X, and Z. You might have students think of adjectives to describe snacks that begin with the letters (quick, zippy), or consider foods and adjectives that contain the letters within the words.

Encourage all responses from students even if they name less nutritious foods. Record responses on the chalkboard.

Assign a letter of the alphabet to each student. Have each student print the letter, draw a picture of a food, and print the name of the food under the picture. Create a wall mural by having the students mount their papers in alphabetical order. An alternate idea is to put the 6 colorful posters showing food characters on the bulletin board.

Have the students sort their pictures and place them under the most appropriate poster.

Questions for conversation:

—How many foods were named?

—Which foods do you eat for a snack? In a meal?

—Are some foods better choices than others? Why?

—What foods were mentioned in the "Magic Cupboard" story the class read in Activity 1?

Explain that any food—even leftovers from a meal—can be eaten for a snack. But some foods are better snack choices than others. In succeeding lessons, the students will learn how to identify foods with the following characteristics:

—Foods that help you grow.

—Foods that do not provide too many calories in the form of sugar and fat.

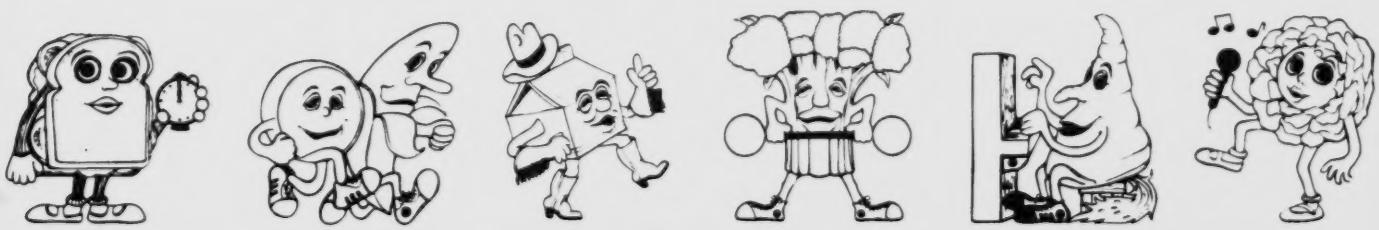
Snack of the Week

Increase awareness of tasty, easy-to-make snacks by scheduling a weekly preparation activity. Create a snack cupboard display on the bulletin board that includes a picture and facts about the selected foods. (See art ideas on work sheet H.)

Each week select a snack from recipe sheet D. Write the recipe on the chalkboard and have students copy it onto their copies of work sheet E. They can assemble the pages into a cookbook with a cover made from colored construction paper. Encourage them to share their own ideas for good snacks.

(continued)

A	avocado, asparagus, apple, apricot, artichoke
B	beans, biscuits, broccoli, bagel, beets, banana, blueberries
C	chicken, cabbage, corn, celery, chili, cheese, cereal, crackers, cantaloupe, carrots, cherries, cauliflower, cucumbers
D	dates, dried fruit
E	eggs, eggplant, enchiladas, eggnog
F	fish, figs
G	grapefruit, graham crackers, greens, grapes, green pepper
H	ham, hamburger, honey, humus
I	ice cream
J	jelly, juice
K	kebabs, kale, kiwi fruit
L	lettuce, lemons, limes, lima beans, leeks, lentils
M	milk, muffins, mushrooms, macaroni, mangos, meat
N	noodles, nuts, nectarines
O	oranges, onions, oatmeal, okra
P	pineapple, pear, peach, plum, prune, peas, pancakes, potatoes, pizza, peanuts, pudding, pumpkin, papaya, popcorn
Q	quince jelly
R	rice, raisins, rolls, roast beef, radishes, rhubarb
S	spinach, soup, squash, spaghetti, strawberries, sprouts
T	tomato, tortillas, tuna, turnips, taco
U	Ugli fruit
V	vanilla wafers, vegetables
W	waffles, water chestnuts, whole-wheat bread, watermelon, watercress
X	
Y	yams, yogurt
Z	zucchini

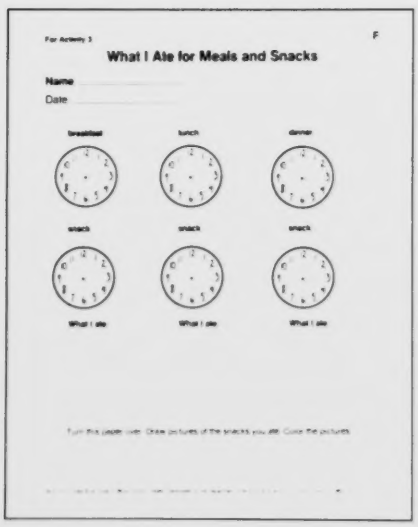


My Snacking Style

Advance Preparation

Copy work sheet F.

Schedule time during two consecutive days for this activity.



For Activity 3 F

What I Ate for Meals and Snacks

Name _____

Date _____

breakfast lunch dinner

snack snack snack

What I ate What I ate What I ate

Turn this paper over. Draw pictures of the snacks you ate. Color the pictures.

It's Time to Eat (Day 1)

As you distribute copies of work sheet F, explain that each student will keep a record of when he or she ate for meals and snacks in one day.

Explain that the first three clocks on the work sheet are for meals—breakfast, lunch, and dinner. The typical pattern in the United States is to eat three meals a day. In addition, people often eat one or more snacks each day. A different eating pattern may be typical in another culture. No single eating pattern is right. The important concern is to eat enough good foods.

Use the time school lunch is served or a snack is prepared in the classroom to help students draw the hands on one of the clocks. Instruct the students to take their work sheets home and record the time they eat all meals and snacks away from school by drawing hands on the clocks. Under each snack clock they can also record what they ate.

Note: If a student eats fewer than three snacks or does not eat all three meals, the clock should not be filled in. If a student eats more than three snacks he or she could trace the clock on another sheet of paper and draw hands to record the time the snack was eaten.

My Eating Record (Day 2)

Make a time line on the chalkboard by writing each hour of the day, starting with 6:00 A.M. and ending with 9:00 P.M. Go through the time periods, hour by hour, and ask the students to raise their hands for each time that corresponds to when they ate a meal or snack. Quarter and half hours could be recorded under the appropriate hour (for example, 6:15 and 6:30 under 6:00). For each student who raises his or her hand, record the letter B (breakfast), L (lunch), D (dinner), or S (snack) to indicate what was eaten. Write these letters in a vertical column above the appropriate hour.

Questions for conversation:

—At what hour of the day were the most students eating? Did they eat a meal or a snack?

—How early in the day did students begin eating? Did they eat a meal or a snack?

—How late in the day were students eating? Did they eat a meal or a snack?

—When did most students eat breakfast? lunch? dinner?

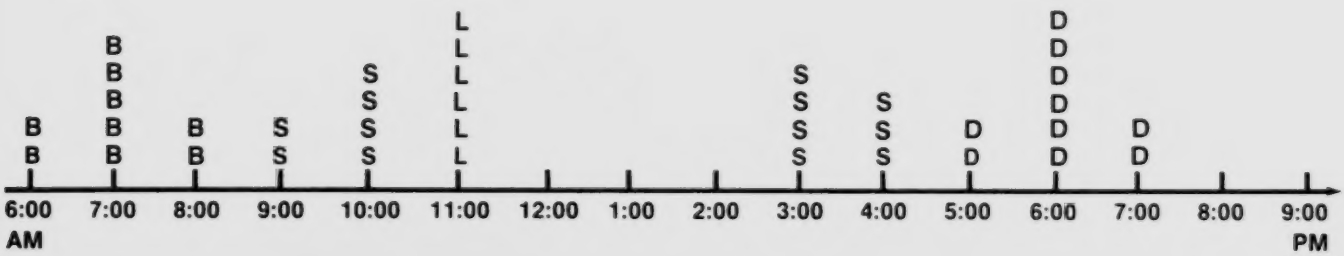
—How many hours of the day were snacks being eaten?

—When did most children eat snacks?

—How many snacks were eaten in the morning? afternoon? evening?

Using a clock face, count the number of hours between the time most students ate breakfast and the time most students ate a morning snack. (If a morning snack was not eaten, compare breakfast to lunch.) Write the

(continued)



number for this time interval on the chalkboard. Repeat for lunch, afternoon snack, dinner, and evening snack. Conclude by counting the number of hours between evening snack and breakfast.

Questions for conversation:

—When did the least amount of time between eating occur?

—When did the greatest amount of time between eating occur?

—What were students doing when they were not eating?

—Why do we need to eat?

—Why is *what* you eat more important than *when* you eat it?

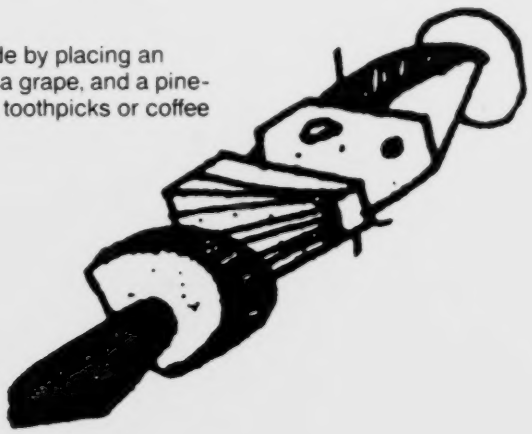
—Why is it not a good idea to eat a snack just before a meal?

Conclude the discussion by having the students make a simple snack.

Ideas:

Apple slices spread with peanut butter

Fruit kebab made by placing an orange section, a grape, and a pineapple chunk on toothpicks or coffee stirrers



Invisible Goodness

Advance Preparation

Provide or make folders for each student to make a cookbook.

Collect

- Lemon juice.
- 5 clear glasses.
- 1 cup strong tea.
- 1 cup cola.
- 1 cup tomato juice.
- 1 brown paper towel per student.
- 1 potato chip per student.
- 1 orange section per student.

Provide food ingredients for a snack.

Get out "Eat Fruit Every Day" or "Don't Miss Lunch" poster.

Understanding Invisible Goodness

Students can begin to understand that foods are mixtures of substances called nutrients. They are not expected to grasp the entire concept of nutrients.

Show the students a glass of water. Stir in some lemon juice. Ask the students if they can see the lemon juice. Explain that the lemon juice is like nutrients in food—it is there but they can't see it. Nutrients are invisible goodness. Write the word "nutrient" on the chalkboard. Explain that nutrients in food help people to grow and have energy for working and playing.

Test for iron. Fill two clear glasses one-quarter full of tea. Add an equal amount of cola to one glass of tea and an equal amount of tomato juice to the other glass. Pour some cola into an

empty glass and tomato juice into another empty glass and set each behind the corresponding "test" glass. Compare the two pairs of glasses. Look for cloudiness. Cloudiness is made by solid particles. When the solid particles settle to the bottom of the glass they are called a precipitate. The juice that has a precipitate contains iron. Which drink contains iron? (tomato juice)

Your body uses iron to make healthy blood. You can get iron by eating meat, fish, poultry, whole grains, legumes (beans, peas, and lentils), nuts, peanut butter, and some vegetables and fruits.

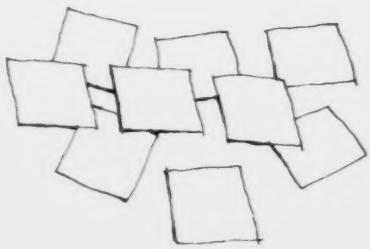
Test for fat. Give each student a brown paper towel, a potato chip, and an orange section. Tear the paper towel in half. Have the students write "potato chip" on one half and "orange" on the other half. Rub each food on the paper until it leaves a spot. Let the papers dry, then hold them up to the light. If the food contains fat, a translucent spot will appear and light will shine through. Water produces a translucent spot, but a water spot disappears when the water dries. A fat spot will not disappear. Which food contains fat? (potato chip)

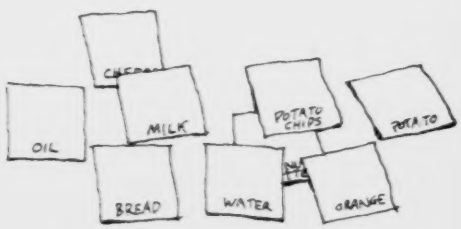
Fat is a source of energy, which you need to work and play. Many foods provide energy. People often get too much energy from foods and not enough important nutrients such as iron. You have to choose foods carefully to get enough nutrients and not too much fat. Too many fatty foods can also contribute to health problems such as heart disease later in life.

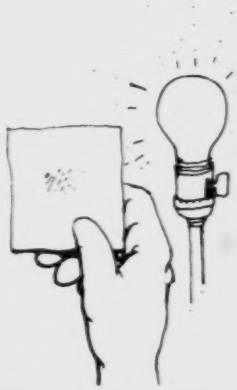
Snack of the Week

Put the poster "Eat Fruit Every Day" or "Don't Miss Lunch" on the bulletin board.

Make a fruit drink or another snack from recipe sheet D. Perhaps your students would like to make a Puddles Face Sandwich or a Grandma Shaker. If you make the sandwich, the lunch poster would be the best choice to put on the bulletin board.







Food Energy Makes a Difference

Advance Preparation

Bring two balloons.

Collect

A solid-colored piece of plastic or cloth (4 x 5 feet).

Black, yellow, green, orange, and brown felt-tipped markers.

Cardboard for making spinners.

8 ½ x 11 inch pieces of cardboard or heavy paper.

Filled with Energy

Give balloons to two students. Instruct one student to blow the balloon up as much as possible. Instruct the other student to blow the balloon only halfway up. Have both students release their balloons. Discuss what happened. Which balloon went the farthest distance when released? Why? (The balloon that is filled with the most air should go the farthest.)

Sources of Energy

Explain that the students used energy to blow air into the balloons. Air gives the balloon the energy it needs to move. How far (or how long) the balloon travels depends on how much air you put into it. Ask students to name other sources of energy (electricity, gasoline, wind, sun, nuclear power, diesel fuel, food).

Benefits of Food Energy

Have the students demonstrate how energy affects the way they feel. What do they feel like doing when they are tired or hungry? How do they feel after eating? Explain that how long they can keep active depends on how much and what foods they choose to eat.

The particular food we choose is important. All food gives us energy. Certain foods, however, give us both energy and large amounts of nutrients—the invisible goodness we talked about in Activity 4.

Food and Fitness Go Hand in Hand

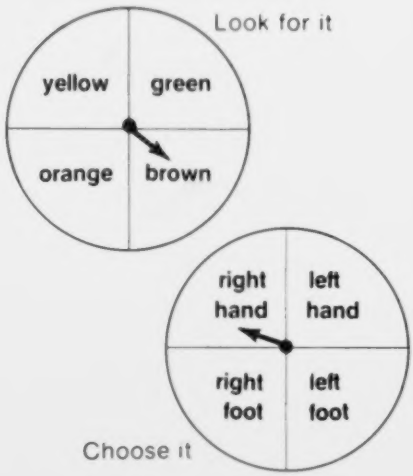
Good food is not the complete answer to feeling well. To be fit, everyone also has to be active. Have the class play a game that both provides exercise and focuses on food choices.

Look, Choose, and Twist Game

Lay a 4 x 5-foot piece of plastic or cloth on the floor. Mark off 20 squares with a black felt-tipped marker (9 inches by 9 inches). Have students draw a picture of a good snack in each square. Be sure to include 5 drinks, 5 raw vegetables, 5 fruits, and 5 breads, cereals, or whole-grain foods. Color each drink yellow, each vegetable green, each fruit orange, and each grain brown. Put together two spin wheels.

Easy Alternates

- Draw a grid on the floor, marking off squares with chalk. Tape Dairy Council food model cards in the middle of the squares.
- Have each student draw a picture of a snack on a paper or cardboard. Again be sure to include 5 drinks, 5 raw vegetables, 5 fruits, and 5 breads, cereals, or whole-grain foods. Place the food pictures on the floor and tape them together.



Steps in the game:

1. Pick two people to be spinners, one to hold the **look** dial and one the **choose** dial.
2. Divide the class into teams of 4 players each.
3. The first player does what the spinner says: "Look for a fruit snack."
   "Choose it with your right hand."
   The player then puts his or her **right hand** on an orange square.

(continued)

OR

"Look for a grain snack."
"Choose it with your left foot."
The player puts his or her **left foot** on a **brown square**.

4. The first player reaches for the right snack and keeps his or her hand or foot on it.

5. The other players have one turn each. They have to twist around each other to reach the pictures of the appropriate snacks. Then the first player goes again. The game lasts until someone falls.

6. Each team gets one point for every snack its players reach. Keep score. Then the next team takes its turn.

Magic Carpet Game

The game requires "Magic Carpet" cards, which your class can make. Ask them to

—Draw and color a picture of a good snack on a 8½ x 11-inch piece of cardboard or heavy paper.

—Press the card between two pieces of clear contact paper or laminate.

You may be able to use the pictures for the alphabet drawn in Activity 2.

1. Count the number of people in your class. Subtract 1. This is the number of cards you need to play the game.

2. Put the cards on the floor, all over the room.

3. Pick a leader.

Now you are ready to play.

4. Follow the leader around the room. Step on "magic cards" when you can. Play music or sing a song while you walk.

5. When your teacher says "stop" you must stop where you are. Are you on a "magic card"? If not, you are out!

6. Count the players who are out. Add 1. Take away the same number of "magic cards."

7. Start the music again. Play until only three players are left.

8. Now it's time for a snack! Let the winners serve a good snack.

Walking

How did you walk on the "magic cards"? Try to walk like this:

—Stand up tall.

—Look ahead, not at your feet!

—Move your left leg forward.

—Swing your right arm forward. Swing your left arm back.

When you take a step, try this:

—Touch the floor with your heel.

—Then touch the floor with the ball of your foot.

—Then put your weight on your toes.

Name That Snack

Advance Preparation

Copy story G.

Sentences with Pictures

A rebus sentence uses pictures for one or more words. Write a rebus sentence on the chalkboard and read it to the students. Examples:

An is sweet and juicy. (apple)

A is crunchy. (carrot)

I like to eat slices with dip. (green pepper)

Erase the picture and have students draw other pictures that will make sense in the sentence. Have the students read the sentences. Make a list of the names of the foods. Ask students to think of other rebus sentences about snacking.

Have the students read story G. Make a list of all the rebus words on the chalkboard as the story is read. You may want to read the story and have the students read the rebus words.

Word Associations for Snacks

What words come to mind when you describe snacks?

Delightful, fresh, crisp, juicy, refreshing, or heavy, chewy, sweet, or salty

Crisp or **juicy** snacks tend to cleanse the teeth, satisfy the urge to eat, and supply many nutrients needed for overall health and fitness.

Have students name crisp and juicy foods:

- Carrot sticks
- Apple wedges
- Orange slices
- Celery sticks
- Pear
- Peach
- Watermelon

Stress that these fruits and vegetables are good snacks.

Chewy, sweet snacks satisfy the American sweet tooth but offer mostly fat and sugar.

Have students name chewy or sweet foods:

- Candy bar
- Devil's-food cake
- Sponge cake
- Sugar cookies
- Danish pastry
- Sugared doughnut
- Soft drinks

Stress that cakes, candies, and soft drinks are high in sugar or fat and tend to be poor snacks.

Smooth, creamy, cold, and **refreshing** are words that describe other popular snacks.

Name smooth, creamy, cold foods.

- Milk
- Ice cream
- Pudding
- Chocolate milk shake
- Whipped cream
- Yogurt
- Low-fat milk

Stress that there are important choices in this list. Foods like low-fat milk and yogurt are better choices because they contain calcium but have less fat than the other foods.

(continued)

BEST COPY AVAILABLE

Sentence Scramble

Think of several simple sentences about snacks. Write each sentence on the chalkboard with the word order scrambled. Instruct the students to unscramble the words and write a meaningful sentence on their papers.

Examples include:

eating the she is fruit. (She is eating the fruit.)

crunchy broccoli is the. (The broccoli is crunchy.)

snacks I like to try new. (I like to try new snacks.)

A Bushel of Words

Write the following sentence on the chalkboard:

Raw fruits and vegetables make a good snack.

Have the students copy the sentence. Instruct them to write as many words as they can using the letters in the sentence. Use as either an in-class or homework assignment. Have the students share their answers. Create a game by awarding one point for each correctly spelled word that no one else thought of.

Additional Activities

Puppet Show

Stage a puppet show by having students make paper bag puppets. Have them trace, color, cut out, and glue Grandma, Puddles, or the food characters on art sheets H. Divide the class into groups and have each group create a puppet show about snacks. They can write an invitation to another class to come see their productions.

Try Me: Vegetable Kite Game

Create a vegetable kite by having students collect pictures of different vegetables from magazines or labels on canned and frozen vegetables. After several pictures have been collected have the students paste them on pieces of colored construction paper and write the name of the vegetable on the back. Hang them from strings on a piece of wood and attach a string for a kite tail to each picture. Whenever members report having tested a vegetable, let them paste a gold star on the appropriate string.

Place Mats

Students can design place mats with good snacking messages for use at snacktime in the classroom or at home. On a plain sheet of white paper they can draw and color pictures of foods and write sentences, rhymes, or riddles. Have them press their paper between two pieces of clear contact paper or laminate. If both sides of the paper are illustrated they will have a reversible place mat.

Add It Up!

Advance Preparation

Copy work sheet E.

Plan to do one of the following activities:

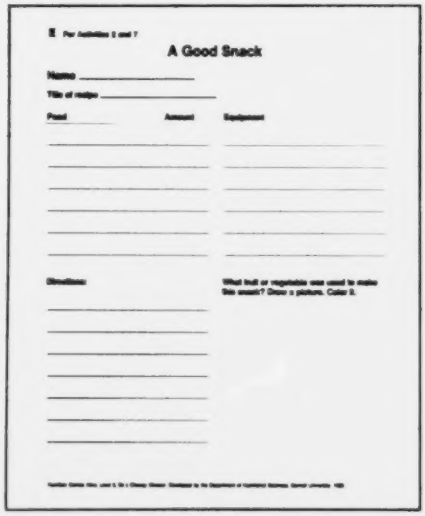
Invite a parent to demonstrate how to make pizza.

Visit a local pizza restaurant.

Ask to visit the school kitchen when pizza is being prepared.

Make pizza snacks in the classroom.

Copy work sheet J.


E. For activities 6 and 7

A Good Snack

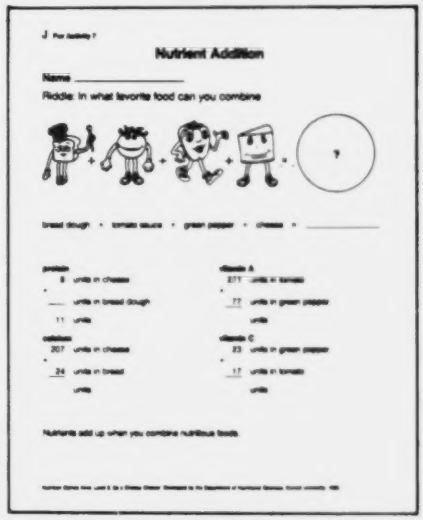
Name _____

Title of recipe _____

Food | Amount | Equipment

Directions:

What kind of vegetables are used to make this snack? Draw a picture. Color it.


J. For activity 7

Nutrient Addition

Name _____

Riddle: In what favorite food can you combine

bread dough + tomato sauce + green pepper + cheese + _____

protein
9 units in cheese
_____ units in bread dough
11 units

calcium
207 units in cheese
24 units in bread
units

vitamin A
271 units in tomato
77 units in green pepper
units

vitamin C
83 units in green pepper
17 units in tomato
units

Nutrients add up when you combine nutritious foods.

Snack Combos

Have the students think about two foods they eat together for snacks. Examples include

Milk and cookies

Crackers and cheese

Carrot and dip

Celery and peanut butter

Write all responses on the chalkboard. You could repeat the activity asking for combinations of three foods.

Recipe Discovery

Many foods we eat are a combination of ingredients. Choose a food with multiple ingredients to discuss. A good choice would be Pizza Bites on recipe sheet I.

Give each student a copy of work sheet E. Have them copy and discuss the recipe as you write it on the chalkboard.

Questions for conversation:

—How many different ingredients are needed?

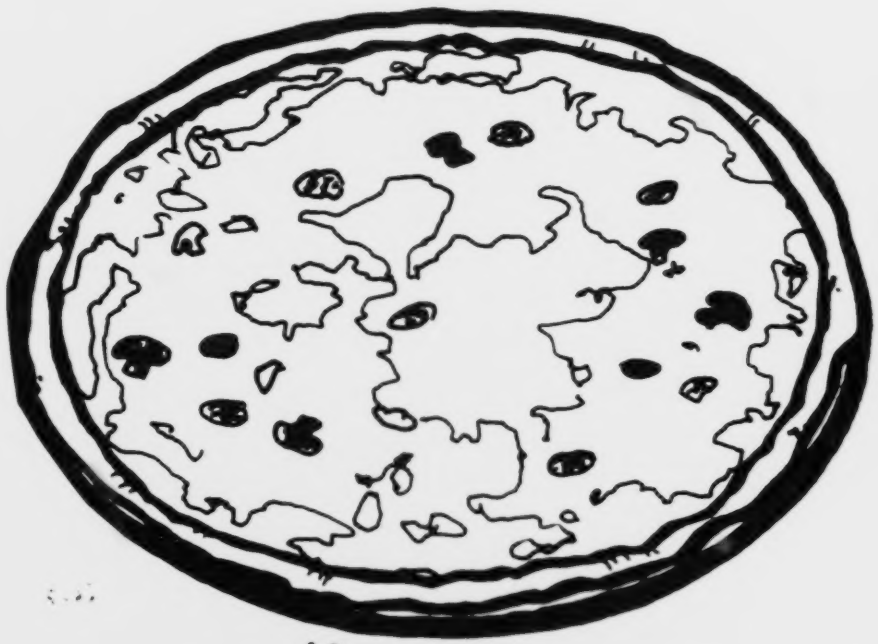
—How much of each ingredient do you use? What units of measurement are used?

—How many pieces of equipment are used?

—If each student eats one snack, how much of each ingredient will you need?

—If each student eats two snacks, how much of each ingredient will you need?

(continued)



Visit the school kitchen or a local pizza shop to observe pizza being made. Invite a parent to demonstrate how to make pizza or let students prepare their own pizza snacks. Pizza Bites, on recipe sheet I.

Nutrient Addition

Review what "nutrient" means from Activity 4, "Invisible Goodness." Explain that each food contains different combinations and amounts of nutrients.

Explain that protein, calcium, vitamin A, and vitamin C are nutrients.

Protein is needed for growth.

Calcium helps build strong bones and teeth.

Vitamin A is needed to build all body cells, for bone growth, and for healthy teeth.

Vitamin C helps to heal wounds and to maintain healthy gums, teeth, and bones.

Since no one food contains all of these important nutrients, we need a variety of foods or a variety of nutritious ingredients in one-dish foods.

Have the students complete work sheet J. After the work sheets are completed, ask the students to name other nutritious combinations that, like pizza, have many ingredients: spaghetti and meatballs, tossed salad, macaroni and cheese, chili, or tacos. Repeat the main idea of the activity: *nutrients add up when you combine nutritious foods.*

The term "units" was used for all four nutrients to simplify the math problems. In reality, protein is measured in grams, calcium and vitamin C in milligrams, and vitamin A in international units or retinol equivalents. The amounts of each food are based on the recipe for individual pizzas on recipe sheet I.

Evaluation

Advance Preparation

Prepare Grandma/Puddles job jar.

Bring out Snack Stoplight boxes and slips of paper with names of snacks or food model cards.

Teach Back

One way to help students learn about good snack choices is to reinforce recent class activities. Involve the students in sharing with each other.

Steps:

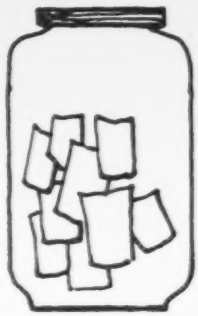
Divide the class into seven groups. Use a job jar—a glass jar decorated with pictures of Grandma and Puddles. Write the following questions on slips of paper. Have each group draw a slip. Each group will be concerned with the main topics of one of the seven lessons in this section.

1. What is a snack? Are all snacks good?
2. How do you make choices about food? Is there a food for every letter of the alphabet?
3. When do most people eat snacks? Is time important?
4. What is invisible goodness? How can you find iron and fat?
5. Why is food energy important? Demonstrate what energy can do.
6. Tell about crisp, juicy, sweet, sticky, creamy, smooth, and cold snacks.
7. How does eating combinations of foods increase the amount of nutrients you get? Give examples.

Ask students to think about what they learned and put it in their own words. A group might decide to conduct an experiment such as the lemon juice or iron experiments in Activity 4. If a group needs help, visit with them about the key ideas from the seven previous activities.

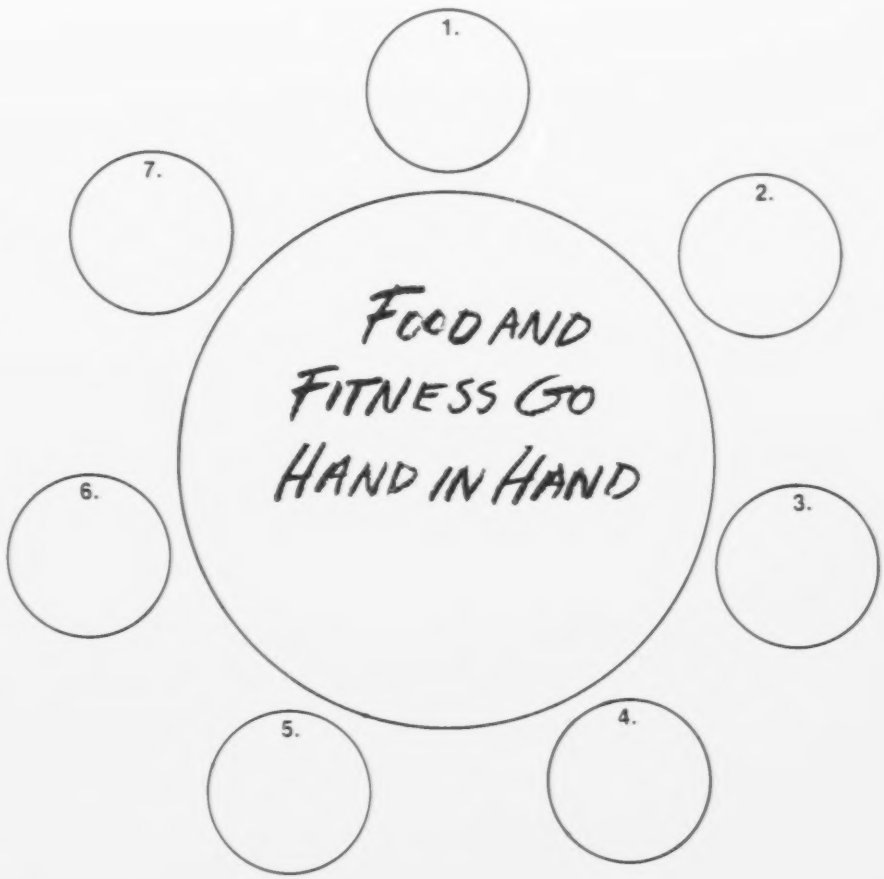
Encourage the students to stand up and clearly state what the class did and what they learned.

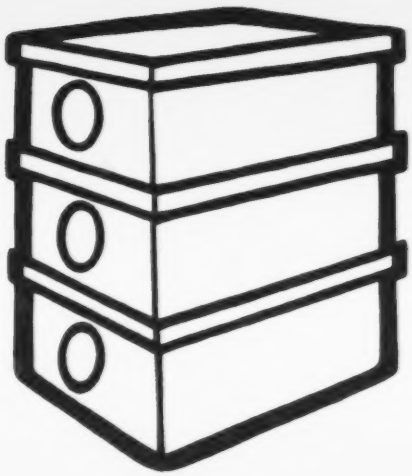
Draw a large circle in the chalkboard. Write the slogan "Food and Fitness Go Hand in Hand" inside the circle. Draw seven smaller circles around the large circle.



As students report, put key words in each of the seven small circles to remind the class about what they learned.

(continued)





Snack Stoplight Posttest

Repeat the game Snack Stoplight. Use the snack slips or the Dairy Council food model cards used when playing the game in Activity 1.

Ask the class to put the cards or slips in the boxes or envelopes according to whether the foods mentioned are good snacks (green), poor snacks (red), or once in a while snacks (yellow).

What progress has the class made since you started this unit? Help the students identify what they now know about being a *choosy chewer* when selecting snack foods.

Section 2

Be a Choosy Chewer

Sensible Snacking

Understanding:

Some snack choices are more nutritious than other choices.

Before You Start

Studies show that children often obtain 25 to 34 percent of their daily calories from snacks. The *quality* of the snacks they eat is therefore extremely important. Instead of knowing merely what is a poor habit (for example, eating "junk foods" low in nutrients) it is important to know desirable or smart snack habits.

Another goal is to help students realize that they can take personal responsibility for their snack choices. Because children use discretionary money to purchase snacks at the store, from a vending machine, or from other sources, they need to learn to pick smart snacks.

Advertisers have not made it easy to make good food choices. Many snack foods generate large profits. Advertisements often use nutrition as a catch word to make products seem healthful. Only as people become more conscious of fitness and health are they willing to say, "That's too sweet for me."

Parents can be allies in promoting better choices. Take opportunities to help the classroom and home work together.

Activity	Subject
9. A Healthy Habit	Science, Social Studies
10. A Game with a Payoff	Math
11. Choices at the Store	Language Arts, Art
12. Messages from TV to Me	Language Arts
13. Too Sweet for Me	Health, Math
14. Choices Wherever I Go	Social Studies, Math
15. Snacks of Yesteryear and Today	Social Studies
16. Evaluation	Language Arts

Section 2

Be a Choosy Chewer

Resources

Read-Aloud Books

Molly and the Slow Teeth. P. Ross. New York: Lothrop, Lee, & Shepard Books, 1980.

Molly, a second grader, feels left out. Everybody's name but hers is on the classroom tooth chart. After trying to fool both her friends and the tooth fairy, Molly becomes convinced that she will always have her baby teeth.

One Morning in Maine. R. McCloskey. New York: Viking Press, 1952.

While brushing her teeth one morning Sal feels something very strange—a loose tooth. On her way to help her father dig clams, Sal stops to share her exciting news with a fish hawk, loon, seal, and the sea gulls. Sal loses her tooth in the muddy clam hole but discovers that she is growing up. In this captivating story, everyday life on the Maine seacoast is portrayed in warm detail.

Little Rabbit's Loose Tooth. L. Bate. New York: Crown, 1975.

One Monday Little Rabbit discovers a loose tooth. All week Little Rabbit carefully eats soft foods with her loose tooth and crisp foods with her other teeth. On Friday the tooth gleams in her chocolate pudding. Not wanting to give up her prized tooth to the tooth fairy, Little Rabbit carefully considers all the things she could do with the tooth. In a fun and creative style, this story captures the excitement of losing a first tooth.

Slump, Grunts, and Snickerdoodles: What Colonial America Ate and Why. L. Perl. New York: Seabury Press, 1975.

Fascinating stories of our rich food heritage are detailed in this book. Succotash, Johnnycake, and Apple Pandowdy are three of thirteen recipes that are presented in historical perspective. The influence of the American Indian, European, and African cultures is described.

Films and Filmstrips

Showdown at Sweet Rock Gulch. American Dental Association, 211 East Chicago Avenue, Chicago, IL 60611. 1973.

This 13-minute color film is a humorous western drama in which the good guys carry toothbrushes and the bad guys carry and eat sugar. A fun way to look at diet and dental health.

Soopergoop. Churchill Films, 662 North Robertson Blvd., Los Angeles, CA 90069. 1975. (Available in English and Spanish.)

In this 13-minute color film, two animated characters concoct a TV commercial for a new sweet cereal. Behind-the-scenes advertising strategies and techniques are revealed. It is an excellent film to illustrate how advertising works and what the ads don't tell you.

The Snacking Mouse. The Polished Apple, 3742 Seahorn Drive, Malibu, CA 92065.

In this clever filmstrip a little mouse learns the hard way why eating only foods high in sugar and fat is bad for his health. When he changes his habits, he demonstrates that choosing nutritious snacks and exercising are important.

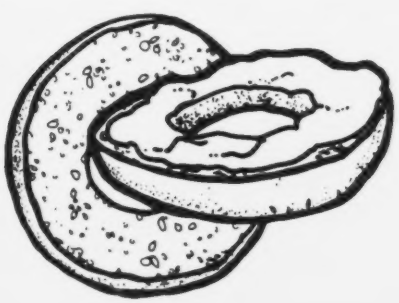
A Healthy Habit

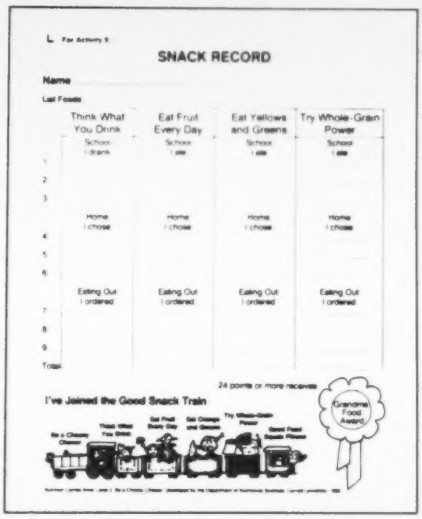
Advance Preparation

Copy work sheets K and L.

Obtain
- The ***Snacking Mouse*** filmstrip.
- Cassette tape recorder.
- Filmstrip viewer.

Collect supplies for science experiments and for the snack.





What Is a Habit?

Have the students do the Name Game on work sheet K. Explain that a habit is something you do without thinking. Writing your name becomes a habit after you have done it many times. Have the students name other habits they have developed.

Have the students complete the rest of work sheet K. Discuss the foods that were circled under Familiar Foods. Explain that your heritage and culture influence what you eat. Some food combinations that are not familiar to you may be food habits of people in other cultures. Have students tell about any other combinations of foods that they eat.

Discuss the answers to Good Snack Choices. Explain that good snack choices such as a box of raisins or carrot sticks and orange juice or milk give you nutrients to help you grow and be healthy. Snacks that give you mostly calories such as a candy bar, cookie, or soft drinks such as cola beverages are okay once in a while but should not be eaten every day.

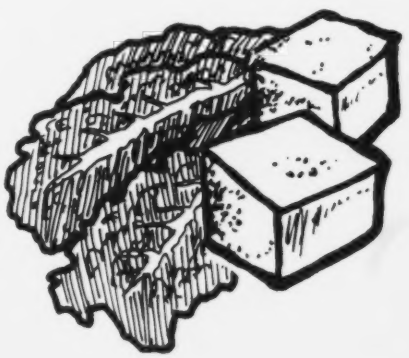
Choose Healthy Snacks

Ask students if they have ever spoiled their appetite by eating a snack before dinner. Explain that they are going to hear a story about a little mouse who did. Show the ***Snacking Mouse*** filmstrip using the cassette tape that tells the story.

Ask the students to name the snacks the mouse ate (potato and taco chips, cookies, chocolate cake, candy, cola). Explain that these snacks are high in sugar, salt, and fat and are not healthy choices. These foods are okay to eat once in a while but should not be eaten regularly. *If you get in the habit of eating less nutritious foods for snacks your body won't get enough good food to grow and be healthy.*

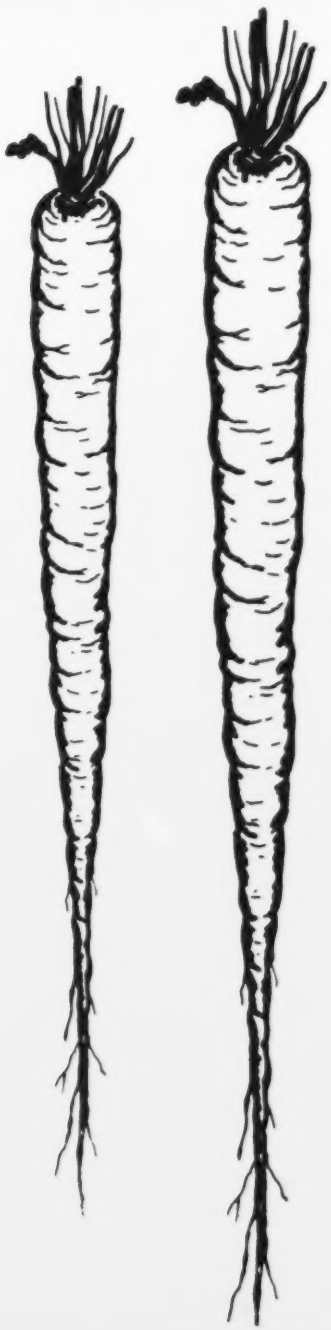
Rewind the filmstrip to the fifth frame, which shows pictures of some nutritious snack foods. Ask the students to identify the foods (cheese, watermelon, cantaloupe, apple, bananas, orange, grapes, celery sticks, carrots, cucumber slices, and peanut butter). Explain that *snacking can be a good habit if nutritious foods are chosen.*

(continued)



New Discoveries

Create a greater appreciation for the habit of eating fruits and vegetables through scientific discovery. Divide the class into groups and help each demonstrate one of the following experiments to the other students.



The Carrot's Juice

You will need:
- 1 carrot
- Vegetable peeler
- 2 bowls
- Plain water
- Salt

1. Peel a carrot using a vegetable peeler.
2. Cut the carrot into strips.
3. Put half of the strips in a bowl of plain water and half in salty water.
4. Wait 30 minutes.
5. Compare the carrots and discuss what happened.

The Crunchy Carrot

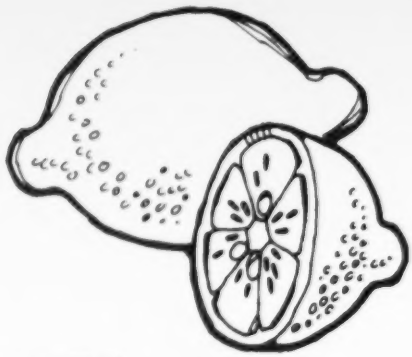
You will need:
- 1 carrot
- Vegetable peeler
- 2 bowls
- Cold water
- Warm water

1. Peel a carrot using a vegetable peeler.
2. Cut the carrot into strips.
3. Put half of the strips in a bowl of cold water and half in warm water.
4. Wait 30 minutes.
5. Compare the carrots and discuss what happened.

If possible, look at the roots of fresh carrots with a magnifying glass. Many tiny rootlets increase the surface area of the root so more water can be absorbed in the process of osmosis.

Whether water flows into or out of the carrot depends on the minerals in the water. If more minerals are inside the roots than in the soil, water flows into the roots, making them firm and crisp.

When there are more minerals in the soil water than in root cells (the condition you created with salt water), water flows out of the roots, leaving them wilted and soft. Try the experiment with different vegetables. Encourage students to peel carrots and keep them cold in a refrigerator ready to eat as a snack.



Lemon Magic

You will need:
- 1 apple
- 2 plates
- 1 lemon or orange
- Knife

1. Cut an apple into slices.
2. Divide the slices between two plates.
3. Squeeze juice from a lemon or orange over the apples on one plate.
4. Wait 30 minutes.
5. Compare the apples and discuss what happened.

Fresh-cut fruit turns brown when exposed to air (O_2). Lemon or orange juice coats the surface and prevents oxidation.

More simple experiments can be found in the book ***Grocery Store Botany*** (see Resources, Section 1).

Class Snacking Time

Enjoy chilled carrot sticks in a cottage cheese/yogurt dip.

Hand out the snack record, work sheet L. Ask students to keep the work sheets and record what foods they eat as snacks at school, at home, and when eating out. They will turn these records in at the end of Activity 14.

47

Variety is important because, although some foods are high in certain nutrients, no one food supplies all needs.

A Game with a Payoff

Advance Preparation

Sort out the 24 Dairy Council food model cards needed for the math game.

Become familiar with the fable in Appendix 3 so you can tell it to the class.

Searching Out Nutrients—A Card Game with a Payoff

No one food contains all of the important nutrients like vitamins A and C, calcium, and protein. Therefore we need a variety of foods so the nutrients will add up. If we pick foods with lots of nutrients they add up faster. We can prove it with a math game.

Take Dairy Council food model cards showing the following eight foods and ask eight students to help you determine which foods contain the most nutrients for either a breakfast or a snack. For milk, be sure you have cards that list nutrients in 1 cup.

List the names of the foods on the board. Do *not* write in the numbers.

Ask the students to supply them as you discuss each nutrient.

Calcium

Ask the eight students to turn over their cards and call out the amounts of calcium in each of these foods. Ask the class to tell you what are the three largest numbers (milk, low-fat milk, yogurt). Circle these numbers.

Vitamin C

Ask the students to give the food cards to someone else in the classroom. Ask these students to call out the amounts of vitamin C in these same foods. Again circle the top three numbers (orange juice, grapefruit, cantaloupe).

Help the students think about what they now know. They have identified foods that contain large amounts of calcium and vitamin C. What food contributes *no* important nutrients? (soft drink)

If for breakfast only these foods were available, determine the combinations we can eat to supply calcium and vitamin C (for example, orange juice and a cup of milk, or half a grapefruit and a cup of yogurt, or a wedge of cantaloupe and a glass of low-fat milk). These foods also make good snacks. They are often available from a vending machine or a fruit stand. Stress that we can't eat just one food and get high amounts of both calcium and vitamin C.

Vitamin A

What foods are rich in vitamin A? Have students hand the cards to eight students who have not had a turn. Have these students call out the amounts of vitamin A given on the back of each card. These units are much larger. What are the top three numbers? Circle them (milk, low-fat milk, cantaloupe). Why is low-fat milk higher in vitamin A than regular milk? The card says vitamins A and D have been added so there is more present than usual. Ask students to look at a label on a milk carton at home to check its nutritive value.

Do you suppose any other foods contain as much vitamin A as cantaloupe does? Hand out eight *different* cards that were included in the Snack Stoplight game in Activity 1. List the names of these foods on the board and ask students to give the numbers listed for vitamin A.

(continued)

	Calcium	Vitamin C	Vitamin A
Milk (l cup)	304	4	250
Low-fat milk (1 cup)	304	4	500
Yogurt	290	5	90
Soft drink	0	0	0
Orange juice	11	56	249
Whole-wheat bread	19	Trace	Trace
Grapefruit	19	45	94
Cantaloupe	0	32	3273

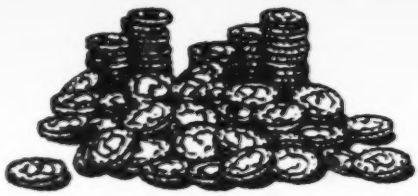
Carrot sticks	5500
Apricots	1635
Watermelon	1180
Beef taco	352
Cheese pizza	945
Broccoli	1938
Tomato juice	972
Vanilla ice cream	346

Which food has a number larger than 3273? (carrots at 5500) Which foods are *less than 3273 but more than 500* in vitamin A and D-fortified low-fat milk? (apricots, watermelon, cheese pizza, tomato juice, broccoli)

Protein

This math game can be repeated for protein using eight different cards. To simplify the numbers for your second-grade students who are not ready to handle the decimals given on the back of the food model cards for protein, the following rounded numbers can be used by writing both foods and numbers on the chalkboard.

Whole-wheat bread	2
Low-fat milk	7
Cheese pizza	18
Rice	2
Refried beans, ½ cup	9
Fried chicken, 3 oz.	26
American cheese, 1 oz.	6
Hamburg, 3 oz.	23



Enhancement: Dimes and Dollars
Even Small Amounts Count

Is a dollar bill better than a dime? Yes. That's why we talk about choosing good snacks. They have more dimes or more nutrients, and you get what you need faster.

But if you add one dime at a time to your bank you soon have a dollar. Ask your students how many dimes it takes to make a dollar.

The following math problem shows how "dimes," or small amounts of protein, in *eight* different foods can add up to the same total provided by *two* very popular American foods: pizza and fried chicken. Fill in the numbers (units) for each food.

Pizza	18
Fried chicken	26
TOTAL	44 units

Summary

We can see that small amounts of nutrients or "dimes" in eight foods add up to equal amounts in two foods. A big *if* now follows. Dimes add up *if* you eat a combination of *nutritious* foods. Soft drinks offer zero, so if you use them instead of milk the math problem won't work.

Milk for breakfast	7
Milk for lunch	7
Milk for dinner	7
Toast for breakfast	2
Sandwich	4
Cheese	6
Rice	2
Refried beans	9
TOTAL	44 units

Tell the fable "Mr. Crocodile and the Little Green Frog."

Choices at the Store

Advance Preparation

Week 1

Collect

Dairy Council food model cards used in Snack Stoplight game.

Large piece of paper for drawing backdrop in store.

Card table for snack stand.

Old white sheets for aprons, 3-inch cardboard strips, cheesecloth for chef hats.

Week 2

Food ingredients for snack preparation.

Creating a Play Store or Snack Stand

Students can construct a play store or snack stand in a corner of the classroom. You might want to follow the Magic Cupboard theme or call it the Smart Snack Store. Discuss with your class how everyone can help. Perhaps a parent might be willing to assist. Divide the class into four teams using slogans from the posters:

Think what you drink

Eat yellows and greens

Eat fruit every day

Be a choosy chewer

Assign each team to an activity to prepare the snack stand. Later each team will fix one snack to serve from the stand.

Four activities will keep everyone busy:

Team 1. Make a mural showing shelves in a store for the back of the stand.

Team 2. Create a snack stand using a table and cover.

Team 3. Make aprons and hats for at least two salespersons.

Team 4. The first week stock the stand with food models. The second week prepare one food to sell in the snack stand.

Be a Choosy Chewer Chef Hat

Instructions:

1. Measure around head.
2. Add 1 inch for overlap.
3. Cut a strip of white paper 3 inches wide. The length equals head measurement plus 1 inch.
4. Label the hat with magic marker: "Be a Choosy Chewer" outside, student's name inside.
5. Overlap 1 inch and glue, staple, or use a paper fastener.
6. Puff up 1 foot of white cheesecloth, double thickness, to make the top of the chef hat. Glue edges of cloth to the inside rim of the hat band.

Apron

Instructions:

1. Use an old white sheet or unbleached muslin.
2. Decorate with felt or crayon to show fruit, milk, vegetable, and whole-grain snacks.
3. Sew or staple ribbon ties at neck and waist.

(continued)

On the back of each of the following Dairy Council food cards have students in Team 4 place the number given below (or they could attach color-coded pieces of felt):

Carrot sticks	3	Chocolate milk shake	2
Cheese pizza	3	Banana	3
Potato chips	1	Sugar cookie	1
Vanilla ice cream	2	Danish pastry	1
Soft drink	0	Grapes	3
Raisins	2	Cheese slice	3
Popcorn	3	Bagel	3
Plain yogurt	3	Salted peanuts	2
Milk	2	Sponge cake	1
Chocolate bar	1	Dried apricots	2
Low-fat milk	3	Strawberries	3
Devil's-food cake	1	Orange	3
Chocolate pudding	2	Apple	3
Beef taco	3	Green pepper strip	3
Watermelon	3	Doughnut	1
Broccoli	3	Whole-wheat bread	3

Have students line cards up on pretend shelves in back of the stand, picture side facing out.

The snack stand can be used in class to encourage wise purchases in the future.

After Team 4 has stocked the pretend store with the food cards, other students can ask for snacks. Encourage the students to use complete sentences as they play the Magic Cupboard game:

I would like a snack, please.

What color is the snack?

The snack is yellow.

What shape is the snack?

The snack is long and curved.

Is the snack a banana?

Yes, I would like a banana.

The storekeeper can then give the purchaser the correct card.

After everyone has described a snack and been issued a card, have students turn their cards over. Have students holding cards with the number 3 bring up their cards. These are all good snack foods. Discuss why they are good:

—Use descriptive words like crisp, and juicy to apply what students learned in the word association game.

—These foods contain nutrients (invisible goodness) important for growth and health such as calcium, protein, and vitamins A and C.

—They are not high in fat, sugar, or salt.

Next, have all those with cards with the number 2 bring up their cards. Discuss why the fat, sugar, or salt in these foods means you should use caution in eating them. Suggest that these foods are good if certain decisions are made. For example:

Raisins and apricots	Brush your teeth. Dried fruits have concentrated sugar.
Salted peanuts	Buy unsalted.
Chocolate milk shake	High in calories. Have less often.
Regular milk	Buy low-fat milk.
Vanilla ice cream	Contains both sugar and fat but is high in calcium. Eat once in a while.

Finally, have students with cards with the number 1 bring up their cards. Have them tell why these snacks are less desirable on a regular basis. Most of them are high in sugar and are very sweet.

The only card left is the one for soft drink. Point out that soft drinks contain *no nutrients, only calories.*

On succeeding days, let each team take a turn preparing and serving a food from the snack stand wearing their aprons and chef hats. Keep it simple. Suggestions:

1. Think what you drink (orange juice, low-fat milk, tomato juice)
2. Eat yellows and greens (carrot and green pepper sticks and dip)
3. Eat fruit every day (pieces of apple with peanut butter, orange slices, banana)
4. Whole-grain power (different kinds of bread, wheat crackers with cheese)

Messages from TV to Me

Advance Preparation

Collect props for selling ads.

Optional: Obtain ***Nutrition Comes Alive*** videotape, 30-second spot announcements (see Resources, Section 1).

Name That Ad

Tell students to think about commercials they have seen on television. Make sure they understand what a commercial is before proceeding. Be sensitive to students who may not have or watch television.

Ask for volunteers to describe a specific commercial. Explain that they should give as many details as possible but not divulge the product name. Details might include jingles, cartoons, or names of people used in the ad; information the ad gives about the product such as that it tastes good, will clean better, will last long, will make you strong; visual effects. Have the student ask if anyone can name the product. If not, have the student reveal the name of the product.

List each product name on the chalkboard. Ask how many students are familiar with the commercial. Record the number next to the product name.

Questions for conversation:

—Did you buy the product?

—Did you ask your parents to buy it for you?

—Why did you (or why would you like to) buy the product?

—If purchased, was it what you expected?

—Would you buy it again? Why?

—Do the three most popular ads have anything in common?

—How many of the ads were for foods?

Explain that many less nutritious foods (high in sugar, fat, or soduim and low in nutrients) are often advertised on TV. Ask the students if they think any of the foods on their list are good snack choices. Put a star by them. You may need to help the students identify nutritious and less nutritious foods.

Ask the students to name other good snack choices. List them on the chalkboard. Ask the students if they have ever seen ads for these foods. Explain that just because foods are advertised on TV does not mean they are good for you. Many delicious and nutritious foods are not advertised.

My Sales Pitch

You may want to allow one day for the students to plan and create a commercial and a second day for them to present their TV performances.

Divide the class into small groups. Assign a food to each group and explain that each group is to create a commercial promoting the food as a snack. They may want to sell their food as it is or use it to make another food. Ideas for simple snacks are on recipe sheets D and I. The students could use Grandma and Puddles to help "sell" their food. If you can obtain the videotape **Nutrition Comes Alive**, students could get ideas from the spot announcements.

Ideas for visuals

—Real foods

—Pictures or self-made drawings

—Puppets made from paper bags

—Body costumes. Wear one color from head to toe. Make a top for your costume—a broccoli head, carrot top, bread wrapper, banana peel, or other food.

Too Sweet for Me

Advance Preparation

Obtain one of the following books (see Resources, Section 2):

Molly and the Slow Teeth by P. Ross
One Morning in Maine by R. McCloskey

Collect

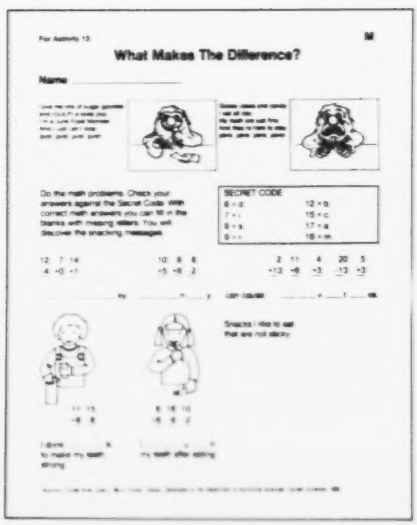
8 small paper cups (2 per group).

Warm water.

An assortment of sticky candies (such as marshmallow, caramel, toffee, gumdrop, peppermint, or fruit-flavored hard candies).

Grapes or other fresh fruit.

Copy work sheet M.



What Makes The Difference?

Name _____

Do the math problems. Check your answers against the Secret Code. With correct math answers you can fill in the blanks with missing letters. You will discover the smacking message!

SECRET CODE

6 = d	12 = b
7 = i	15 = c
8 = s	17 = a
9 = r	18 = m

12 7 14 — 4 +0 +1 — y _____ n _____ p _____

10 9 6 — +5 +6 2 — can (cause) _____ r _____ t _____ ray

2 11 4 20 5 — +13 +6 +3 -13 +3 — _____ _____ _____ _____ _____

Snacks I like to eat that are not sticky:

11 15 — +6 8 — I brush my teeth

8 16 10 — +5 8 7 — my teeth after eating

Losing a Tooth

Read ***Molly and the Slow Teeth*** or ***One Morning in Maine*** to the class. Have the students discuss what happened in the story. Then discuss the following questions with the students.

—How many of you have lost one baby tooth? Two? Three? More?

—Why did your baby teeth fall out?

—When baby teeth were lost could you see new adult teeth growing in?

—What makes having a new tooth so exciting?

—Why would it be a problem if you lost all your baby teeth at one time?

—Why do you have baby teeth first, then adult teeth?

—How do you want your teeth to look?

Sticky Snacks

Divide the class into small groups. Give each group two small paper cups half full of warm water, one piece of candy, and one grape. Have them describe and compare how each feels.

Instruct the groups to place the candy in one cup and the grape in the other. Wait 2 to 3 minutes, then have the students feel their candy and grape. Have them describe how each feels.

(The candy will feel sticky or gooey; the grape will not.) Note: The colorings added to the candy dissolve in the water, making the water the same color as the candy.

Have each group check its candy again after 10 minutes. Ask if the candy looks and feels any different. (The candy is slowly dissolving. It will take about 10 to 20 minutes for hard candies to dissolve completely and about 30 to 40 minutes for chewy candies.)

Then have them check the grape. Does it look or feel different? Will it stretch like a marshmallow or caramel?

Ask the students if they can identify other sticky candies. Explain that candies are mostly sugar. Sugar makes them sticky. Explain that when you swallow the candy, some of it stays behind, sticking to your teeth. If you don't brush your teeth the sugar can stay there a long time. That makes it easy for cavities to form.

(continued)

Delicious, Chewy
Caramel Tree Candy Bar
Ingredients: Caramel (sugar, corn syrup, cream, butter), milk chocolate (sugar, milk, cocoa butter, and chocolate) with soya lecithin, an emulsifier, and vanillin, an artificial flavoring.

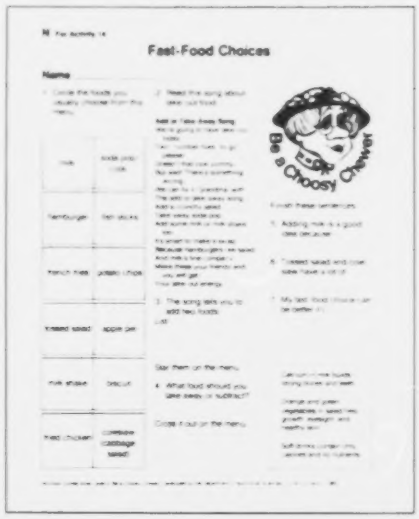
Making a Difference

Have the students complete work sheet M. With the correct math answers they will be able to complete the sentence: Sticky candy can cause cavities.

The words "milk" and "brush" complete the remaining sentences. The high calcium content of milk is why milk can help make teeth strong.

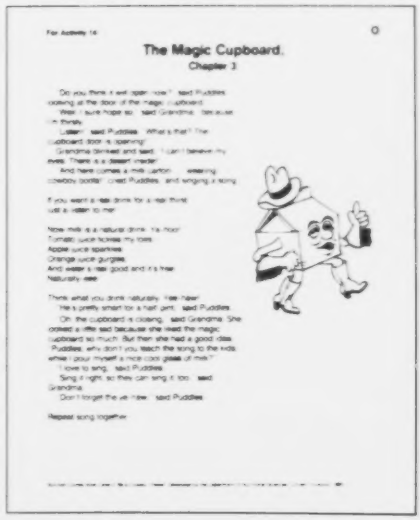
Sticky snacks should be avoided. But if they are eaten occasionally, it is helpful to brush your teeth afterward. It is also important to brush and floss your teeth at least once each day, preferably before going to bed. A flouride-containing toothpaste helps prevent cavities.

Choices Wherever I Go


Fast-Food Choices

Name

Be a Choosy Chewer


The Magic Cupboard.

Chapter 3

Advance Preparation

Copy work sheets N and O.

Put up "Think What You Drink" and "Salads Are So Good" posters.

Choices, Choices

Delicious food can be found everywhere. In early American life the family worked hard to prepare the food at home. Now, however, more than one-third of our meals are taken away from home. Eating away from home takes many forms. See how many your students can name.

- School or bag lunch
- Milk break for children
- Coffee break for adults
- Food purchased from vending machines
- Popcorn and candy stands at theaters
- Fast-food and drive-in restaurants
- Street corner vendors
- Ice cream shops
- Bakeries
- Refreshment stands at ball parks
- Restaurant meals
- Picnics

Some Foods Are More Nutritious Than Others

How to make choices from all the food available away from home is the task at hand. Most people, both adult and youth, consider food eaten away from home as "fun food." Eating often is considered recreation and truly is a central time for social events. Health and nutrition concerns are far from anyone's mind. Have the children tell you what foods they like to eat away from home.

Fast-Food Choices

Class time offers a valuable opportunity to help students practice making real-life choices. Good, nutritious food is available away from home, but it is mixed in with a wide, enticing array of high-sugar, high-fat foods.

Use fast-food restaurants and drive-ins as the first example. Hand out work sheet N and have the students pretend they are eating their dinner at their favorite fast-food place.

Often children pick hamburgers, french fries, and a cola beverage. The cola beverage is what we need to concentrate on because it has no nutrients, only calories. So instead of criticizing or even mentioning the french fries, it seems prudent to concentrate on the *one change that*

(continued)

would make the most difference in this meal: replacing the cola beverage or soft drink with a carton of milk. Work sheet N stresses the value of calcium in milk.

Since fast-food meals are often low in vitamins A and C the second valuable change could be to add a tossed salad. More and more fast-food outlets have salad bars. Perhaps giving a star on the snack record for an "orange and greens" choice when eating out can motivate your students.

Placing "Think What You Drink" and "Salads Are So Good" posters on your bulletin board can call attention to these changes. To give added emphasis to the importance of drinking milk, have the class read Chapter 3 of "The Magic Cupboard" on work sheet O.

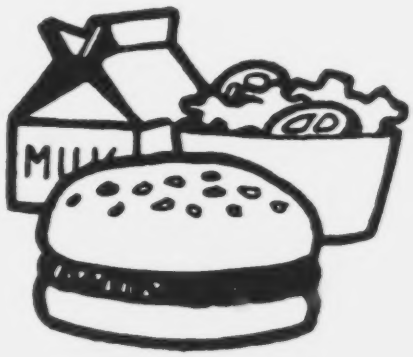
Vending Machines

Again, in-class practice of a real-life choice can be valuable. Since most vending machines dispense soft drinks or soda pop, talking about them seems the obvious place to start.

Have the class complete work sheet O. In this exercise the students can see that milk has many nutrients besides calcium. Again, soft drinks have none. Since it is foolish to discourage students from wanting a cold, refreshing beverage on a hot day, have them help you list alternatives.

List all of the drinks that one can choose other than soft drinks (milk, tomato juice, apple juice, orange juice, water). Call attention to the new fruit juice snack packs now available.

Parents can be very valuable in lobbying for having fruit juices added to vending machines at public places where youth congregate.



Progress Reports

Have students turn to their snack records. Stress that if they choose milk or a fruit juice instead of a soft drink they should write it in under "Think What You Drink."

Likewise, if they choose coleslaw (cabbage salad) or a tossed salad they can write in their choice under "Eat Orange and Greens," even though salads are not often snacks.

Snacks of Yesteryear and Today

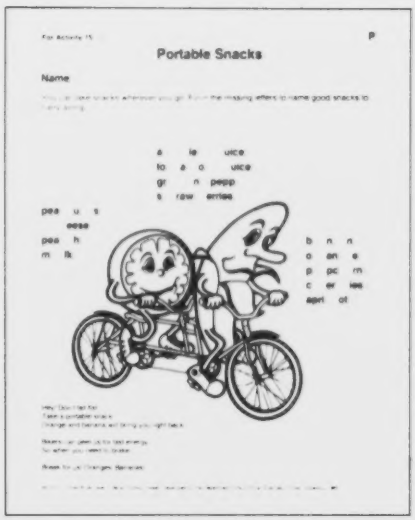
Advance Preparation

Collect

Ingredients to prepare snacks.

Labels for granola and fruit-flavored yogurt.

Copy work sheet P.


Portable Snacks

Name

Snacks of Yesteryear

Two hundred years ago our Native American Indians and early settlers were always "on the run." They hunted and traveled through the woods on long trips.

A food they ate while traveling was called pemmican. The early settlers also ate journey cake. Today we call it Johnny cake or corn bread.

Class Investigation

Have the class find out about these trail snacks of yesteryear.

—What foods were pressed together to make pemmican?

—Were these foods a good trail snack? Why?

—Do we have foods like pemmican today?

To make pemmican the North American Indians pounded dried lean meat fine and packed it in sacks of hide. Explorers also made a preparation of dried beef, suet (animal fat), dried grapes (raisins), berries, and sugar.

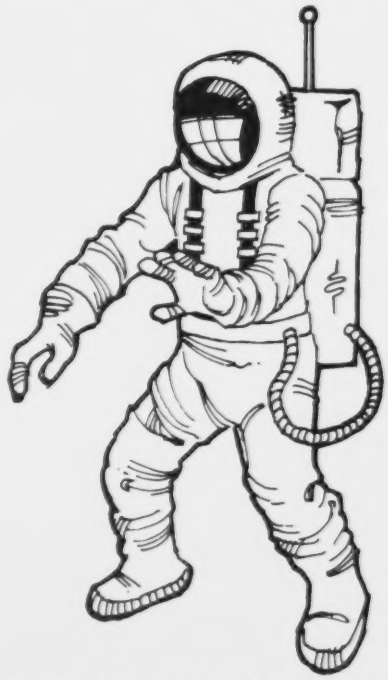
Can your class determine

—How was Johnny cake made?

—Why did early settlers use Johnny cake?

—Do we have corn snacks like this today?

To make Johnny cake the Indians taught early colonists to dry and pound corn, mix it with boiling water, and bake it in thin cakes. Hunters and traders ate these cakes on their long journeys over Indian trails, hence the name "journey cakes."



Snacks of Today—For the Active

Point out to students that today people go on long hikes, too. They need to take snacks to provide energy and nourishment for their bodies.

Ask students to think of situations when people need to pack their food when they go where there is a weight and refrigeration problem.

Astronauts on space flights.

Hikers on the Appalachian trail.

Bike hikers with backpacks.

Discuss the following trail foods:

Sausage stick

Gorp (mixture of peanuts, raisins, chocolate bits)

Dried foods

Granola

What do all of these snacks have in common? (All provide high energy, are concentrated, dry, and won't spoil.)

(continued)

What is missing that is essential? (Water, source of certain nutrients.)

What portable foods might be added? (Oranges, bananas, dry skim milk.)

Snacks of Today—For The Inactive

Unfortunately, today most people are inactive and spend much of their time in cars, at desks, or sitting in front of a TV set. High-energy trail foods do not meet their needs. When people travel they can often take a thermos and keep foods cool in a special insulated box.

Smart snackers need to adjust. Two excellent examples of delicious foods that can be adjusted to have less sugar and fewer calories are granola and yogurt. Look at labels of two products:

Box of commercial granola—high sugar

Fruit-flavored yogurt—high sugar

Both may have 100 more calories per serving than granola made at home or plain yogurt.

Easy options

—Make your own granola with less sugar and coconut.

—Buy plain yogurt or make own yogurt. (Perhaps a parent might demonstrate.) Add fresh fruit.

Class Activities

—Turn to work sheet P to find out more about portable snacks.

—Make your own granola and serve in cups. Taste plain yogurt with fresh peaches, blueberries, or strawberries.

Enhancement

- Challenge your class to figure out what would be a good snack or lunch if you were going on a long class field trip.
- Investigate snacks of different cultures in your community. Does everyone eat the same between meal foods?

  Korea—rice cakes

  Puerto Rico—tostones or surullos

  Mexico—guacamole

Evaluation

Advance Preparation

Collect

Large envelope.

Props for constructing a class vending machine.

Food snacks or Dairy Council food model cards for vending machine activity.

A Snacking Resolution

Write the following sentence on the chalkboard: I will be a choosier chewer about snacking by _____. Have students copy and complete the sentence in their own words. Students can fold their papers, write their names on the outside, and put the papers in a large envelope. Seal the envelope and label it "Our Snacking Resolutions." After completing the last section in ***Be a Choosy Chewer***, Activity 23, or at a later time, open the envelope and return the slips of paper. Have students discuss whether they became choosier chewers or smart snackers.

Class Vending Machine

See if a parent might obtain a moving company packing carton for you.

If you stand the carton up in the corner of your classroom you can make it into a vending machine.

—Cut out one long panel so when the box is set on end a student can stand inside it.

—Cut 4 windows (4 x 6 inches) to display a random assortment of snacks, one in each window.

—Below each window cut an opening or slot large enough for a small piece of food or slip of paper to be handed through the opening.

Activity A

1. In each window place a Dairy Council food model card to correspond with a fresh food snack from each of the following food groups:

   Vegetables and fruits

   Milk and milk products

   Meat, eggs, legumes, nuts

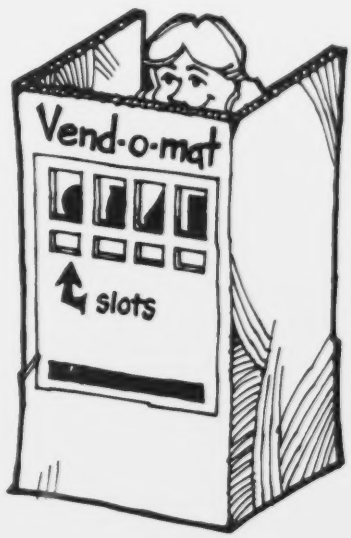
   Whole grains

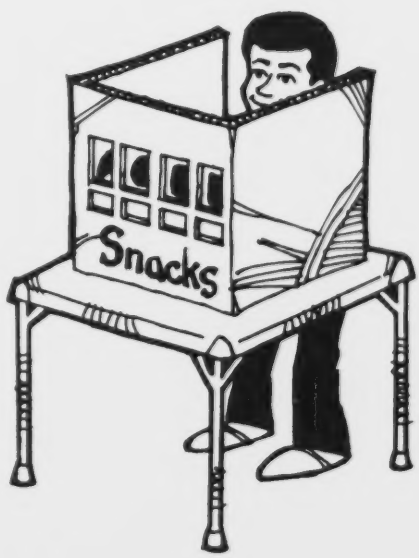
2. When students put play money in a slot in the vending machine, a child inside dispenses the appropriate fresh snack. (Examples: piece of banana, piece of cheese, package of peanuts, a whole-wheat cracker.)

Activity B

1. Keep changing the assortment of four foods in the vending machine windows using the 32 food model cards used in Activity 11.

2. When a class member makes a choice of food by inserting a slip of paper in the slot, the student inside marks the rating of that food and returns (dispenses) the slip to the "customer." Students who pick snacks with a score of 3 know they have become choosy chewers.





Section 3

Be a Choosy Chewer

Be Fit—Feel Good

Understanding:

Exercising regularly contributes to physical fitness and good health.

Before You Start

According to the National Children and Youth Fitness Study, our American youth are not very fit. Approximately half of the children do not engage in enough vigorous physical activity to maintain cardiorespiratory health. A significant increase in the percentage of body fat in young people is another concern.

Recognizing that heart disease may originate in patterns of behavior during childhood, it seems prudent to start linking adequate food with adequate physical activity in the early elementary grades. Deliberately taking time to stop and do the "Flexible Four" and other exercises in the classroom and on the playground helps students see how exercising can improve their feeling of being fit. Matching snacking choices to level of activity is another payoff for future health.

Activity	Subject
17. Stretching Out	Fitness
18. A Healthy Heart	Science, Fitness
19. Shape Up	Fitness
20. An Exercise Trail	Math, Fitness
21. Action Relays	Fitness
22. Fit It All Together	Language Arts
23. Evaluation	Health, Fitness

Section 3

Be a Choosy Chewer

Resources

Albert the Running Bear's Exercise Book. B. Isenberg and M. Jaffe. New York: Clarion Books, 1984.

A warm and gentle story is used to explain why exercise is important. By following the simple directions and delightful drawings the reader can join in as Albert, the famous running bear, learns how to do knee-bumps, curl backs, and many other basic exercises. Then join the animal jamboree of aerobic exercises. The information-packed story teaches about muscles, correct breathing, and rules for safe exercising in a delightfully fun style.

You Can't Make a Move without Your Muscles. P. Showers. New York: Harper & Row, 1982.

This Let's-Read-and-Find-Out science book focuses on muscles. The reader discovers how muscles facilitate movement of the body. Smooth and skeletal muscles are compared. The importance of routinely using your muscles is stressed. Simple "try this" activities and illustrations enhance the discussion.

The Human Body: The Muscles. K. Elgin. New York: Franklin Watts, 1973.

Beginning with a general discussion of skeletal, smooth, and cardiac muscles, the book progresses to descriptions of specific muscles in the body. Simple drawings enhance the text.

Hear Your Heart. P. Showers. New York: Thomas Y. Crowell, 1968.

After a trip to the doctor, a young boy makes a stethoscope out of a cardboard tube. He compares how his heart sounds with those of his friends, father, and baby brother. The reader learns how the heart works in this Let's-Read-and-Find-Out science book.

About Your Heart. S. Simon. New York: McGraw-Hill, 1974.

In this Let's-Try-It-Out book, children are encouraged to discover for themselves just how their hearts work. Large, multicolored drawings illustrate how blood flows in and out of the heart and reaches all parts of the body. Simple do-it-yourself projects actively involve the reader in learning.

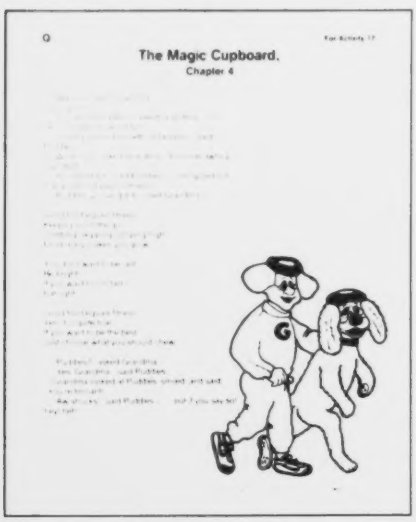
Stretching Out

Advance Preparation

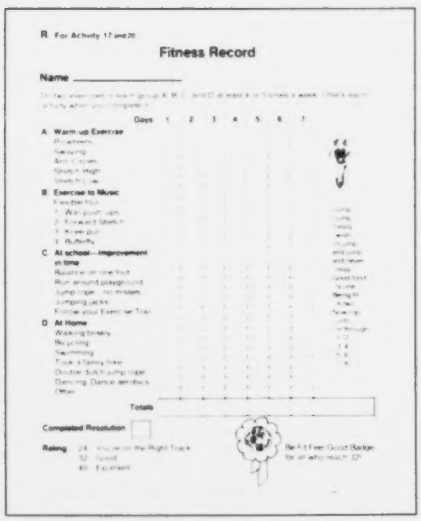
Bring a large rubber band or piece of elastic.

Copy work sheet Q.

Copy Fitness Record, work sheet R.


Q For Activity 17

The Magic Cupboard.
Chapter 4


R For Activity 17 and 20

Fitness Record

Name _____

Days 1 2 3 4 5 6 7

A Warm-up Exercise

B Exercise to Music

C At school—Improvement in Time

D At Home

Totals

Completed Resolution

Rating

Be Fit—Feel Good

Hand out copies of "The Magic Cupboard," Chapter 4, on work sheet Q. Have students follow along as you read the story. After you finish ask the class what the following phrases mean:

—Good food equals fitness.

—If you want to run fast, eat right.

—If you want to be the best, choose what you chew.

Climbing, Skipping, Jumping High

Grandma puts on her jogging suit to go exercising. What exercises might a person do to get a real workout? See how many your class can name. (Exercise may make you breathe hard and perspire.)

> Walking fast, jogging, bicycling, swimming, relays, skipping rope, jumping up and down, playing outdoor games, doing exercises to music, break dancing.

Some people Grandma's age enter the Olympics. Do you know how people stay fit all their lives?

Moving with Muscles

Pull slowly on a rubber band or piece of elastic. What happens? (It increases in length, stretches.) Release the rubber band or elastic from one hand. What happens? (It returns to original size.)

Have the students raise both hands above their heads. Tell them to relax their arms. Then have them reach for an imaginary object that is 6 inches above their fingers. Ask if anyone knows what part of the body enabled them to stretch like the rubber band (muscles). Muscles allow you to move your body in many different ways.

The Big Stretch

Grandma and Puddles know that the best way to begin exercising is to warm up gradually. Stretch yourself. Have students stand by their desks and do the following stretching exercises.

1. **Swaying**—to stretch the muscles of your hips and back.

   Stand with your feet apart.

   Hold both arms over your head.

   Sway from left to right. Sway from right to left.

   Can you still keep your balance? Try it on your back or stomach.

   Swing and sway using only your legs.

2. **Overhead Pinwheels**—to stretch the muscles in your shoulders and upper back.

   Stand with feet slightly apart, arms at sides.

   Raise right arm above head.

   As right arm lowers, bring left arm up above head and over to the front.

   Do the exercise fast 5 times. Increase your speed.

3. **Arm Circles**—to stretch the muscles in your shoulders and upper back.

   Stand with arms at your sides.

   Raise arms up, even with your shoulders.

   Do arm circles forward 5 times.

   Do arm circles backward 5 times.

   Can you do arm circles in front of you? Over your head?

   Try arm circles sitting in your chair.

4. **Stretch high**—to stretch the muscles in your arms and shoulders.

   Stretch up slowly.

   Bring your arms high over your head.

   Can you stretch up on your toes?

   Try stretching on your heels, in a sitting position, on your back, and on your stomach.

5. **Stretch low**—to stretch the muscles in your arms and back of legs.

   Relax your head, neck, and body.

   Bend over slowly.

   Hang your arms down. Look at the floor. But keep your legs straight!

   Stretch down as far as you can.

   Try it in a sitting position on the floor. Try it on your back with your feet out.

The Flexible Four

Now that the class has limbered up by doing stretching exercises, introduce the Flexible Four.

Have the students turn to work sheet Q. One way to judge fitness is by how flexible you are. The four exercises pictured show a routine that each student can do on his or her own. If possible, have a physical education teacher come and demonstrate.

Encourage students to

—Do the Flexible Four regularly.

—Remember that stretching before doing any exercise helps the body prepare for action.

—Look for ways to move on to more vigorous exercises.

—Keep a record of their progress (see work sheet R).

Fitness Record

Suggest to students:

—Start your own fitness record (work sheet R). The idea is not to beat others but to be fit and improve your own time.

—Turn to the record. Check off your warm-up exercises. See how often you can do them. Keep a record of your other activities.

A Healthy Heart

Advance Preparation

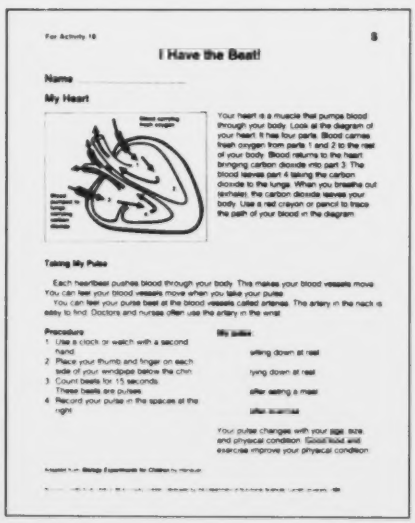
Copy work sheet S.

Bring one or more of the following:

Take-apart model of the heart.

Picture of the heart in ***About Your Heart*** (see Resources, Section 3).

Read-aloud book about the heart (see Resources, Section 3).



For Activity 18 S

I Have the Beat!

Name _____

My Heart

Your heart is a muscle that pumps blood through your body. Look at the diagram of your heart. It has four parts. Blood carries fresh oxygen from parts 1 and 2 to the rest of your body. Blood returns to the heart bringing carbon dioxide into part 3. The blood leaves part 4 taking the carbon dioxide to the lungs. When you breathe out (exhale), the carbon dioxide leaves your body. Use a red crayon or pencil to trace the path of your blood in the diagram.

Taking My Pulse

Each heartbeat pushes blood through your body. This makes your blood vessels move. You can feel your blood vessels move when you take your pulse.

You can feel your pulse best at the blood vessels called arteries. The artery in the neck is easy to find. Doctors and nurses often use the artery in the wrist.

Procedure

1. Use a clock or watch with a second hand.
2. Place your thumb and finger on each side of your windpipe below the chin.
3. Count beats for 15 seconds. These beats are pulses.
4. Record your pulse in the spaces at the right.

My pulse:

_____ sitting down at rest

_____ lying down at rest

_____ after eating a meal

_____ after exercise

Your pulse changes with your age, size, and physical condition. Good food and exercise improve your physical condition.

A Breath of Air

Tell the students to take a deep breath. Hold it for two seconds. Then slowly release it. Ask what they breathed in (air).

Have the students breathe normally for 30 seconds. How many breaths did they take? Multiply by 2 to estimate the number per minute. Do you know what happens to air you breathe into your body and how it helps you move your muscles? Air that you inhale contains oxygen. Oxygen helps your body to get energy from food. Energy from food keeps you moving.

The Beat Goes On

You control the movement of many muscles such as those in your arms and legs. But some muscles move without your help. Did you know that your heart is a muscle? It beats more than 100,000 times a day.

Have the students simulate how the heart works:

Fold one hand over the other.

Squeeze your hands together. Then relax them.

Count how many times you can do this in one minute.

Could you squeeze your hands 80 times in one minute? That's how hard your heart works. Have students make a fist. That's about the size of their heart.

Use a take-apart model or a picture to show students what the heart looks like. Discuss how blood is pumped into and out of the heart. You might want to have the students read more about the heart.

Have the students do work sheet S. Explain that the heart has a 24-hour job. It keeps blood moving so you can move.

Helping Your Heart

Regular exercise can help make your heart stronger. A strong heart works more efficiently and you feel fit.

Have the students try the following exercises:

Week 1—Do this *every day*.

2 minutes—Hop or run in place.
Bicycle ride with back on floor, legs in air.
(Everyone needs to be wearing pants.)
Sit on the floor and row.
Stand up and swim with both arms in turn.

2 minutes—Rest. Sit quietly on the floor.

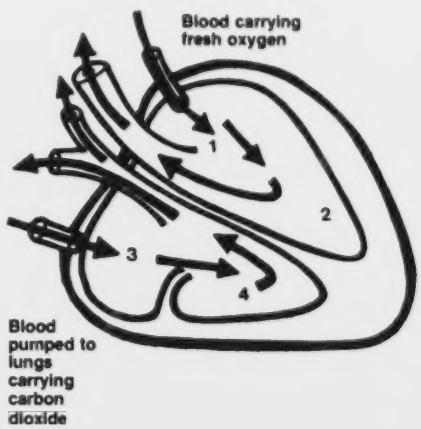
2 minutes—Repeat the first four exercises.

Week 2—Repeat all the exercises you did the first week, but double your exercise time.

4 minutes—Exercise.

2 minutes—Rest.

4 minutes—Exercise.



Shape Up

Advance Preparation

Arrange for space to exercise.

Tell boys and girls to wear pants to do animal walks.

Follow the Leader

Puddles and Grandma are ready to go. They want you all to share an exercise. Try Leaders and Followers. Use music or stop signals. It's another way to have fun while becoming fit.

Ideas for Leaders

(Different students can take turns as leaders.)

Walk tall, walk small
Walk backward
Hop, skip, gallop
Do squat thrusts
Run in place
Race-walk
Walk carrying a rock on your head or pretend a rock is there
Walk, crossing your feet back and forth along a rope

Animal Walks

Ask your students if they want to have more fun and get fit at the same time. Do a series of fitness exercises called animal walks. Naturally, because of Puddles, the first one is about a dog.

Pick four of these animal walks and do them.

1. **Lame dog walk**

   Have two hands and one foot touching the floor. Keep the other foot off the floor as you hop or walk.

2. **Crab walk**

   Hands and feet touch the floor. Walk face down or try it face up. Try it head first or feet first.

3. **Spider walk**

   Walk forward on elbows and knees.

4. **Seal walk**

   Cross legs behind you. Walk on your hands and drag your legs.

5. **Duck walk**

   Walk forward on your knees with hands behind your hips.

(continued)

6. **Frog jump**

   Spring forward. Land on your hands and then your feet. Continue jumping, hands, feet; hands, feet.

7. **Snake crawl**

   Slide on your stomach. Pull with your hands and push with your feet and knees.

8. **Caterpillar crawl**

   Slide on your back by pushing with your feet.

Have relay races using these animal walks.

An Exercise Trail

Advance Preparation

Arrange to use the playground or gym.

Bring

A tape measure.

Sign posts or other markers for stations.

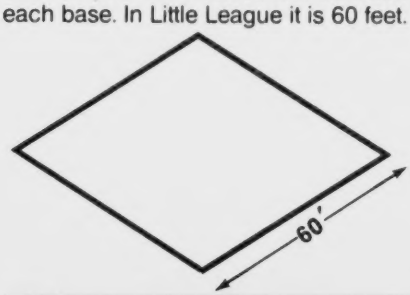
A stop watch.

Blazing a Trail

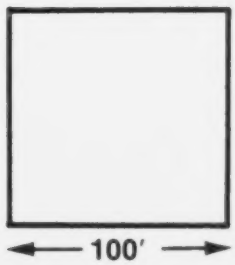
Does your community have an exercise trail through a park? Many do. As you walk or jog along the trail, several stations are marked for doing specific exercises. A station might have a bar for doing chin-ups or a hurdle to cross. Written instructions might direct you to do push-ups or sit-ups.

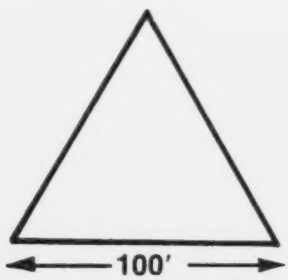
Your students can create their own trail through the school playground or gym. Consider the following possibilities.

A Baseball Diamond. Use an existing baseball diamond or measure off your own. A "pro" field has 90 feet between each base. In Little League it is 60 feet.



Geometric Shapes. Have students discover how far 100 meters is. Use a tape measure to mark the distance. Make an exercise trail with 100 meters between stops. Create a trail with three, four, or more sides.





Adding the Fun

Have the students help think of activities to fill their trail with fun. The following is one possible sequence of activities.

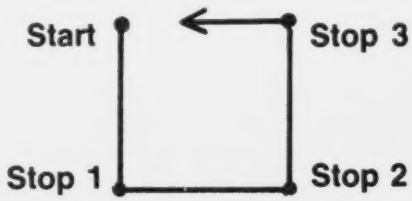
1. Run to stop 1.
2. Stop! Touch your hand to your toes 10 times.
3. Hop to stop 2.
4. Stop! Swing each arm 5 times in a big circle.
5. Walk to stop 3.
6. Stop! Jump up and down 10 times.
7. Run back to the starting point.

Students can practice their math skills while they exercise. Try this:

Stop 1—Count by two
2-4-6-8-10 toe touches

Stop 2—Count by five
5-10-15-20-25 arm swings

Stop 3—Count by ten
10-20-30-40-50 jumps



Can students improve their speed? Have them practice the trail several times. Students can take turns timing each other with a stop watch.

Can students improve their strength? Have them double their activity at each stop. Encourage them to record their progress on work sheet R.

Action Relays

Advance Preparation

Arrange to use the playground or gym.

Bring

A ball.

An orange.

Two pieces of paper.

Have the students divide into teams of four members each. Students can choose a good snack for their team name (Crunchy Carrots, Happy Bananas, Super Broccoli, Winning Oranges).

Pass and Kneel

Have the students practice kneeling on one knee.

1. Each team lines up behind a starting line. The first person is the team captain.
2. Give each team captain a ball. Have the captain walk ahead 10 feet and turn to face the team.
3. The captain throws the ball to the first player on the team.
4. The player tries to catch the ball and throw it back. If successful, the player kneels.
5. A player who misses the ball must bring it back to the line and try again.
6. The captain throws the ball to each player.
7. The team that kneels first wins.

Orange on the Go

1. The players on each team line up, side by side.
2. Give an orange to the first player in each line.
3. Each team must pass the orange from the first player to the last player, then pass it back again.
4. Have the teams think of different ways to pass the orange. Examples:
   Use your right hand only.
   Use your left hand only.
   Touch the orange to the floor first.
5. The team to complete the pass relay first wins.
6. Enjoy a good snack! Have each team cut up the orange and share it.

Paper Race

1. The players on each team line up behind a starting line.
2. Give the first player on each team two pieces of paper.
3. The player walks 20 steps ahead—stepping only on a piece of paper. The player must bend over and move the paper for each step.
4. After 20 steps the player turns around, runs back to the team, and hands the papers to the next player in line.
5. A player who moves ahead without stepping on the paper must start the 20 steps all over again.
6. The first team to complete the race wins.

Fit It All Together

Mural by elementary students, PS 165, New York City. Photo by Allan M. Shapiro.

Advance Preparation

Collect materials for costumes and props.

Have students get out their copies of the four chapters of "The Magic Cupboard" story.

Optional: Obtain the audiotape ***The Magic Cupboard.***

Stage a Play—Food and Fitness Finale

Students now know a lot about snacks. The aim has been to help them be choosy chewers.
Plan to put on a play about good snacks. Have the students teach what they know to another class. A kindergarten class might be invited to see the play.

A. Divide up the Work

(Language arts)
—Decide on the acting parts.
—Write down the words for the actors.
—Write a letter asking another class to come to the play.

(Art)
—Make the costumes and the props.
—Draw and color a program.

(Music)
—Pick the music.
—Practice the singing or speaking parts.

(Food)
—Choose good snacks to eat after the play.
—Make and serve the snacks.

B. Ideas for your play
Use Grandma and Puddles to introduce your play.

Music: "The Magic Cupboard" story includes songs you can sing or speak. The words are on the work sheets. If you can obtain the audiotape of ***The Magic Cupboard***, students can fit the words to the music provided on the back of the tape.

Actors: Milk, carrot, banana, and other snacks are good parts to choose for a play. Some actors can have speaking or singing parts. Everyone can speak and sing in the chorus.

Costume Ideas

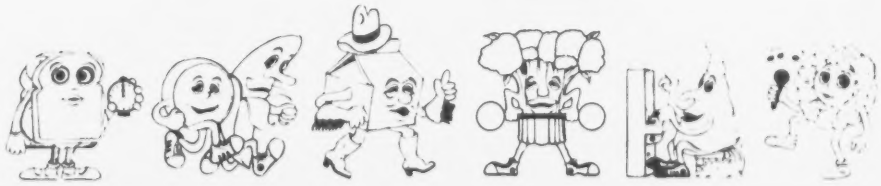
1. Puppets. Everyone can make paper-bag puppets for the actors. You will need a stage for a puppet show.
2. Head masks. Use a large paper bag that will fit over your head. Cut out holes for your eyes and nose. Draw pictures of good foods on the paper bags.
3. Sandwich boards. Make big posters to hang from your neck or shoulders. Hang the posters with yarn or ribbon.
4. Body costumes. Be a good snack! Wear one color from head to toe. Make a top for your costume—a broccoli head, a carrot top, a bread wrapper, a banana peel, or some lettuce leaves.

C. Make up your own play. Here are some ideas:

—Detectives looking for good snack foods.

—Explorers in a "junk-food jungle."

—The "crunchy munchies" become fit!



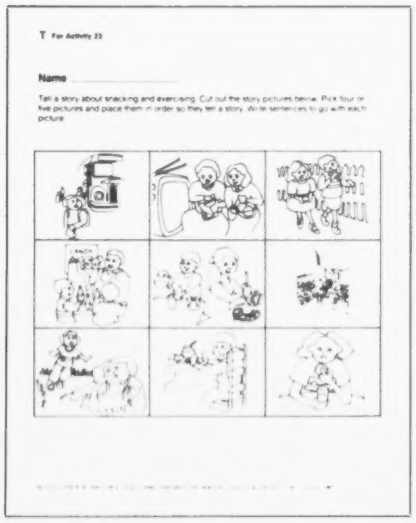
Evaluation

Advance Preparation

Copy work sheet T and Letter to Parents U.

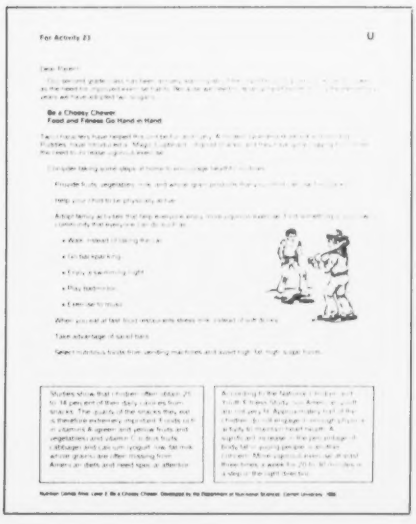
Collect materials needed to repeat the Snack Stoplight game.

Pass out resolution envelopes.


T For Activity 23

Name _____

Tell a story about snacking and exercising. Cut out the story pictures below. Pick four or five pictures and place them in order so they tell a story. Write sentences to go with each picture.


For Activity 23 U

Dear Parents:

Be a Choosy Chewer:
Food and Fitness Go Hand in Hand

Studies show that children often obtain 25 to 14 percent of their daily calories from snacks. The quality of the snacks they eat is therefore extremely important. Foods rich in vitamin A (green and yellow fruits and vegetables) and vitamin C (citrus fruits, cabbage) and calcium (yogurt, low-fat milk, whole grains) are often missing from American diets and need special attention.

According to the National Children and Youth Fitness Study, ... Americans, in general, are not very fit. Approximately half of the children [illegible] engage in enough physical activity to maintain good health. A significant increase in the percentage of body fat in young people is another concern. More organized exercise, at school three times a week for 20-30 minutes or a day in the right direction.

Nutrition Comes Alive, Level 3, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1986.

A Story about Snacking and Exercising

Find out what your students have learned about snacking.

—Have them select four or five story pictures on work sheet T and place them in order to tell an original story. Ask them to write a sentence to go with each picture. Have them share their stories with the class.

—Discuss ways they can be choosier chewers than they are now in selecting good snacks.

—Discuss ways students can be more active and promote heart health.

Snack Stoplight

Your students should be very familiar with this game. Placing the original Dairy Council food models in the right boxes or envelopes should now be an easy task.

You might want to add eight new snack foods to the game and see how the students apply their new knowledge about rating snacks.

Resolution Envelopes

Students become aware of their progress when they are reminded about an earlier decision. Open the envelope prepared in Activity 16 and hand students back their resolutions. Ask students if they are willing to share their resolutions.

Class Resolution

The class might decide to make a resolution to use different foods than they traditionally have for class birthday parties or special occasions.

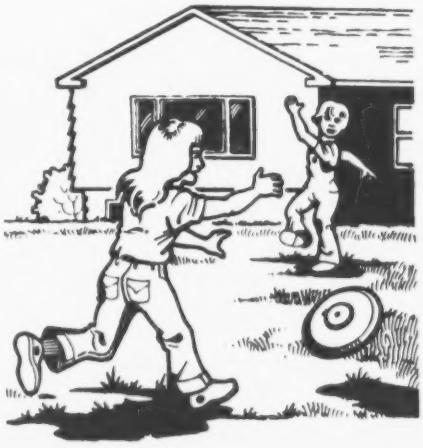
Ask students to think and then share some ideas. Examples: Substitute carrot cupcakes for devil's-food cake with chocolate icing. Have vegetables and dip or fresh fruit instead of cookies.

Try the carrot cupcake recipe on work sheet I and serve with low-fat milk.

Letter to Parents

Parents will by happy to know about the new snacking and exercise information their children have been receiving in the classroom using the **Nutrition Comes Alive** program.

Build cooperation at home by sending the letter encouraging parents to help their child adopt new attitudes about both snacking and physical activity.



Progress Reports

Discuss the Snack and Fitness records.

Now you know about the great things
Good eating does for you
So maybe you will join us
And choose what you chew.

'Cause eating's so delicious
And know this rule of thumb —
If you make your meal nutritious
You get energy-fun.

You've heard the Magic Cupboard
With the choices it gave.
Now it's time for Gran and Puddles
To say "Bye now" and wave.

Here's Puddles, "See you soon
And hope you'll pass back our way.
'Cause we'd love to share another
Choosy Chewer Day!"

THE END

Appendix 1

Dairy Council Offices in New York State

Dairy Council of Niagara Frontier Area
Buffalo (716) 634-1080

Dairy Council of Metropolitan New York, Inc.
New York (212) 682-7961

Dairy Council of Rochester Area, Inc.
Rochester (716) 288-1758

Dairy, Food and Nutrition Council, Inc.
Area Offices:
Arkport (607) 295-7222
Binghamton (607) 724-7598
Latham (518) 785-5441
Poughkeepsie (914) 452-5630
Syracuse (315) 475-2721

Appendix 2

Cornell Cooperative Extension

ALBANY
518-765-2874
Cooperative Extension
Albany County Resources Development Center
Martin Road, R.D. 2, Box 131
Voorheesville, NY 12186

ALLEGANY
716-268-7644
Cooperative Extension
R.D. 1, Box 226
Belmont, NY 14813

BROOME
607-772-8953
Cooperative Extension
Farm, Home and 4-H Center
840 Front Street
Binghamton, NY 13905

CATTARAUGUS
716-699-2377
Cooperative Extension
Cooperative Extension Center
Parkside Drive
Ellicottville, NY 14731

CAYUGA
315-255-1183
Cooperative Extension
Farm, Home and 4-H Center
248 Grant Avenue
Auburn, NY 13021

CHAUTAUQUA
716-664-9502
Cooperative Extension
Chautauqua County Agricultural Center
R.D. 2
Turner Road, Box 341 A
Jamestown, NY 14701-9608

CHEMUNG
607-734-4453
Cooperative Extension
425-447 Pennsylvania Ave.
Elmira, NY 14904

CHENANGO
607-334-2634
Cooperative Extension
Farm, Home and 4-H Center
99 North Broad Street
Norwich, NY 13815

CLINTON
518-561-7450
Cooperative Extension
Old Court House Building
Margaret Street
Plattsburgh, NY 12901

COLUMBIA
518-828-3346
Cooperative Extension
Extension Center
Route 66, R.D. #1
Hudson, NY 12534

CORTLAND
607-753-5077
Cooperative Extension
County Office Building
60 Central Avenue
Cortland, NY 13045

DELAWARE
607-865-6531
Cooperative Extension
Post Office Box 184
Hamden, NY 13782

DUTCHESS
914-677-5061
Cooperative Extension
P.O. Box 259
Millbrook, NY 12545

ERIE
716-652-1170
Cooperative Extension
Farm and Home Center
21 South Grove Street
East Aurora, NY 14052

ESSEX
518-962-8241
Cooperative Extension
Agricultural Center
Sisco Street
Westport, NY 12993

FRANKLIN
518-483-6767
Cooperative Extension
Cooperative Extension Headquarters
11 Brewster Street
Malone, NY 12953

GENESEE
716-343-3040
Cooperative Extension
Cooperative Extension Center
420 East Main Street
Batavia, NY 14020

GREENE
518-622-9820
Cooperative Extension
Extension Center
Route 3, Box 906
Cairo, NY 12413

HERKIMER
315-866-7920
Cooperative Extension
107 Court St.
Herkimer, NY 13350

JEFFERSON
315-788-8450
Cooperative Extension
223 JB Wise Place
Watertown, NY 13601

LIVINGSTON
716-658-2131
Cooperative Extension
158 South Main Street
Mount Morris, NY 14510

LEWIS
315-376-6551
Cooperative Extension
Post Office Box 72
(Outer Stowe Street)
Lowville, NY 13367

MADISON
315-684-3001
Cooperative Extension
Farm and Home Center
Eaton Street
Morrisville, NY 13408

MONROE
716-461-1000
Cooperative Extension
Cooperative Extension Center
249 Highland Avenue
Rochester, NY 14620

MONTGOMERY
518-853-3471
Cooperative Extension
Old Court House
Fonda, NY 12068

NASSAU
516-454-0900
Cooperative Extension
Plainview Complex—Bldg. J.
1425 Old Country Road
Plainview, NY 11803

NIAGARA
716-433-6773
Cooperative Extension
Farm & Home Center
4487 Lake Avenue
Lockport, NY 14094

ONEIDA
315-736-3394
Cooperative Extension
R.R.#1, Box 126
2nd Street
Oriskany, NY 13424

ONONDAGA
315-424-9485
Cooperative Extension
Cooperative Extension Center
1050 West Genesee Street
Syracuse, NY 13204

Cornell Cooperative Extension

ONTARIO
716-394-3977
Cooperative Extension
Cooperative Extension Center
480 North Main Street
Canandaigua, NY 14424

ORANGE
914-343-5979
Cooperative Extension
Farm and Home Center
239 Wisner Avenue
Middletown, NY 10940

ORLEANS
716-589-5561
Cooperative Extension
P.O. Box 150
Albion, NY 14411

OSWEGO
315-963-7286
Cooperative Extension
Cooperative Extension Headquarters
Main Street
Mexico, NY 13114

OTSEGO
607-547-2536
Cooperative Extension
Cooperative Extension
(123 Lake Street)
Cooperstown, NY 13326

PUTNAM
914-628-0454
Cooperative Extension
179 East Lake Boulevard
Mahopac, NY 10541

RENSSELAER
518-270-4000
Cooperative Extension
County Court House
Troy, NY 12180

ROCKLAND
914-638-5500
Cooperative Extension
62 Old Middletown Road
New City, NY 10956

ST. LAWRENCE
315-379-2311
Cooperative Extension
University Shopping Center
125 Main St. East
Canton, NY 13617

SARATOGA
518-885-8995
Cooperative Extension
50 West High Street
Ballston Spa, NY 12020

SCHOHARIE
518-234-4303
Cooperative Extension
41 South Grand Street
Cobleskill, NY 12043

SCHUYLER
607-535-7466
Cooperative Extension
Rural-Urban Center
208 Broadway
Montour Falls, NY 14865

SENECA
315-539-9254
Cooperative Extension
Farm, Home and 4-H Center
Mill and East William Streets
Waterloo, NY 13165

STEUBEN
607-776-7666
Cooperative Extension
County Office Building
199 East Steuben St.
Bath, NY 14810

SUFFOLK
516-727-7850
Cooperative Extension
246 Griffing Avenue
Riverhead, NY 11901

SULLIVAN
914-292-5250
Cooperative Extension
P.O. Box 191
Liberty, NY 12754

TIOGA
607-687-4020
Cooperative Extension
56 Main Street
Owego, NY 13827

TOMPKINS
607-272-2292
Cooperative Extension
Cooperative Extension Center
225 South Fulton Street
Ithaca, NY 14850

ULSTER
914-338-3494
Cooperative Extension
P.O. Box 3545
Extension Headquarters
Kingston, NY 12401

WARREN
518-623-3291
Cooperative Extension
17 Hudson Street
Warrensburg, NY 12885

WASHINGTON
518-747-2861
Cooperative Extension
County Office Building Annex
Lower Main Street
Hudson Falls, NY 12839

WAYNE
315-483-6918
Cooperative Extension
P.O. Box 217
Alton, NY 14413

WESTCHESTER
914-285-5960
Cooperative Extension
216 Central Avenue
White Plains, NY 10606

WYOMING
716-786-2251
Cooperative Extension
401 North Main Street
Warsaw, NY 14569

YATES
315-536-3381
Cooperative Extension
County Office Building
110 Court Street
Penn Yan, NY 14527

New York City Offices of Cornell Cooperative Extension, including Expanded Food and Nutrition Education Program sites (EFNEP):

Administrative Office
212-340-2900
15 East 26th St., 5th Floor
New York, NY 10010-1565

Brooklyn Center
718-237-0920
100 Clinton Street, 2nd Floor
Brooklyn, NY 11201

Bedford Stuyvesant EFNEP
212-783-2722
Stark Bldg., 5th Floor
1360 Fulton Street
Brooklyn, NY 11216

Bronx EFNEP
212-583-7770
2021 Grand Concourse, Room 602
Bronx, NY 10453

Brownsville EFNEP
212-385-0233
405 Rockaway Avenue, 2nd Floor
Brooklyn, NY 11212

Lower East Side EFNEP
212-260-6300
9 Second Avenue, 3rd Floor
New York, NY 10003

Queens EFNEP
212-526-3490
161-10 Jamaica Avenue, Room 216
Jamaica, NY 11432

Upper Manhattan EFNEP
212-923-2400
4250 Broadway, Room 7
New York, NY 10033

Appendix 3

Fable: "Mr. Crocodile and the Little Green Frog "

A little green frog was hopping happily across a log in a pond when it was stopped by a big crocodile.

"Stop," said the crocodile, "I am going to eat you up."

"Oh, no," said the little green frog, "why would you do that?"

"I like little green frogs and I'm hungry," said the crocodile.

"Wait. Let me ask you a question," said the little green frog.

"What did you have for dinner last night?"

The crocodile replied, "A little green frog."

"And what did you have for breakfast?" asked the worried little green frog.

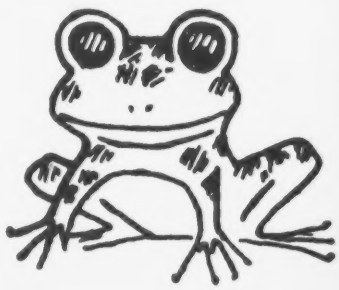
"I had another little green frog," replied the crocodile.

"Oh dear," said the frog, "and what did you have for lunch?"

"A little green frog, of course," said the crocodile.

At that point the little green frog whipped out his handkerchief and tied the crocodile's mouth shut. The crocodile squirmed and tried to get loose.

The frog said, "Don't be angry, Mr. Crocodile. I'm just doing you a favor because if you just ate little green frogs your diet would be missing the variety of food you need to make you healthy and you wouldn't want that to happen." And he hopped away.



Printed with permission of Ruth Davis, Supervisor,
Center for the Expressive Arts, Ithaca Youth Bureau, Ithaca, NY.

Be a Choosy Chewer

Food slips to be cut apart for Activity 1 Snack Stoplight game.

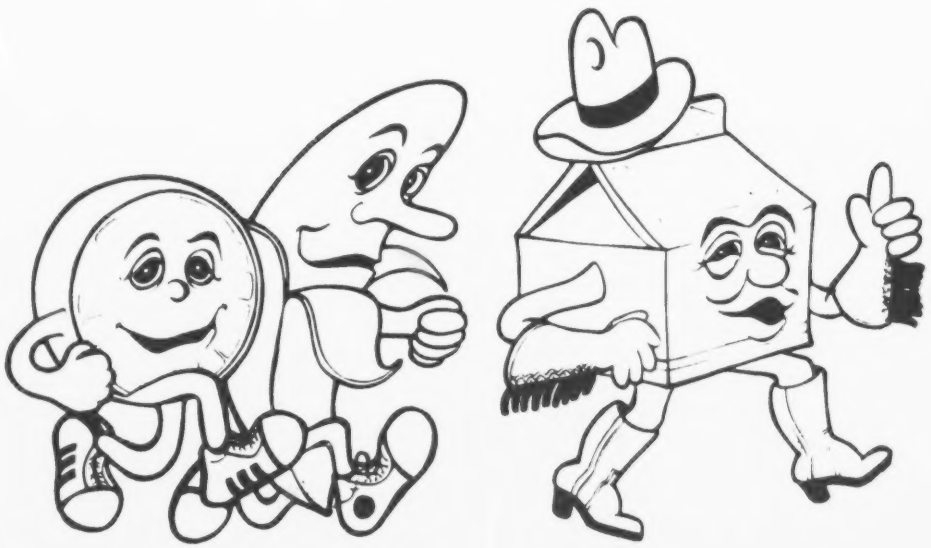
American Cheese	Devil's-Food Cake	Potato Chips
Apple	Danish Pastry	Raisins
Bagel	Dried Apricots	Salted Peanuts
Banana	Grapes	Soft Drink
Beef Taco	Low-fat Milk	Sponge Cake
Broccoli pieces	Milk	Sugar Cookie
Carrot Sticks	Milk Chocolate Bar	Vanilla Ice Cream
Cheese Pizza	Orange	Watermelon
Chocolate Pudding	Popcorn	Yogurt

An Extension Publication of the Division of Nutritional Sciences, a division of the New York State College of Agriculture and Life Sciences and the New York State College of Human Ecology, statutory colleges of the State University, Cornell University, Ithaca, New York.

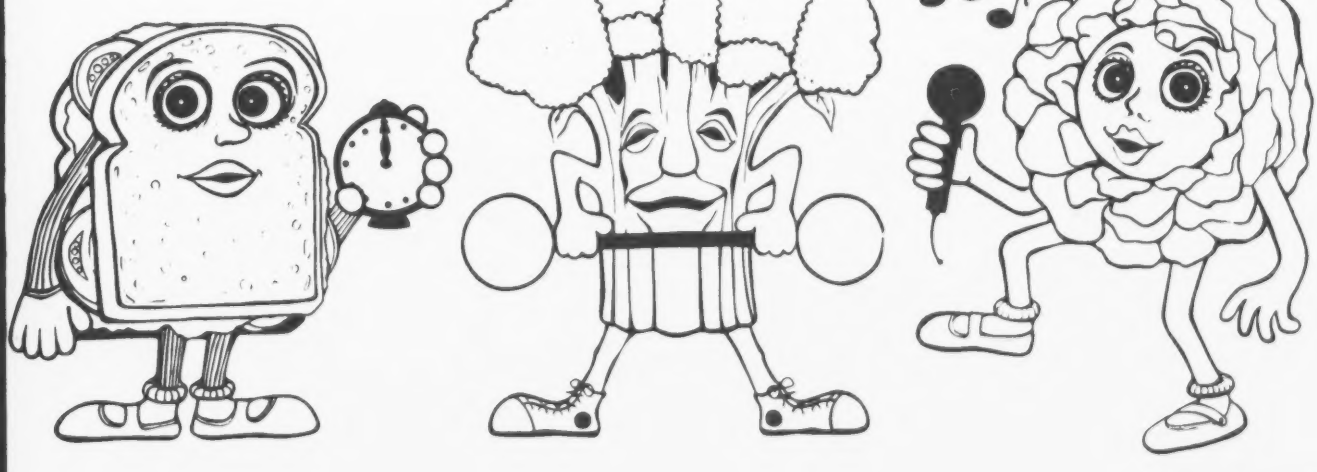
1980 Edition published pursuant to a contract with the New York State Education Department with funding from USDA, Food and Nutrition Service. Nutrition Education and Training Program.

1985 Revised Edition published pursuant to a contract with the New York State Health Department.

This publication is issued to further Cooperative Extension work mandated by acts of Congress May 8 and June 30, 1914. It was produced with the cooperation of the U.S. Department of Agriculture, Cornell Cooperative Extension, New York State College of Agriculture and Life Sciences, New York State College of Human Ecology, and New York State College of Veterinary Medicine, at Cornell University. Cornell Cooperative Extension offers equal program and employment opportunities. Lucinda A. Noble, Director.



Be a Choosy Chewer



Level 2

Work Sheets, Letters to Parents, Recipes
New York State
Revised Edition

NUTRITION COMES ALIVE

SP 028 332

Level 2

Work Sheets, Letters to Parents, Recipes	Letter Code
For Section 1	
"The Magic Cupboard," Chapter 1 (3 pages)	A
Letter to Parents	B
Be a Choosy Chewer work sheet	C
Snacks I Can Make recipe sheet	D
A Good Snack work sheet	E
What I Ate for Meals and Snacks work sheet	F
"The Magic Cupboard," Chapter 2, rebus story	G
Art Ideas	H
Whole-Grain Power recipe sheet	I
Nutrient Addition work sheet	J
For Section 2	
It's a Habit work sheet	K
Snack Record	L
What Makes the Difference? work sheet	M
Fast-Food Choices	N
Think What You Drink work sheet and "The Magic Cupboard," Chapter 3	O
Portable Snacks work sheet	P
For Section 3	
The Flexible Four work sheet and "The Magic Cupboard," Chapter 4	Q
Fitness Chart work sheet	R
I Have the Beat work sheet	S
Tell a Story about Snacking and Exercising	T
Letter to Parents	U

The Magic Cupboard,
Chapter 1

Does your stomach feel so low
You think it touches your shoes?
It's time to fill it up,
But what on earth will you choose?

Here's Puddles, "Pleased to meet you!"
And Grandma to say,
"Hello there! Here's to eating
In the Magic Cupboard way!"

Yes, Grandma has a cupboard
And its door will open wide.
It's magic! and it's full
Of food surprises inside.

Sure eating is delicious
And I'll give you a clue:
It can also be nutritious
When you choose what you chew.

Here's introducing Grandma
And Puddles to say,
"Come join us and we'll have
A Choosy Chewer Day!"

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

A

"Hi there, boys and girls. Well, what do you think of our magic cupboard?" asked Grandma.

"Do you like it, do you?" Puddles asked.

Grandma looked at Puddles. "It looks just like an ordinary cupboard. . . "

". . . but it isn't," said Puddles. "It's magic!"

"I've already said that, Puddles," said Grandma.

"But it is—it opens up and is always full of surprises," said Puddles.

Grandma patted Puddles on the head because he knew so much about the magic cupboard. "Yes sir! Good food surprises. It helps us choose what we chew, because if you eat right, you feel right," said Grandma.

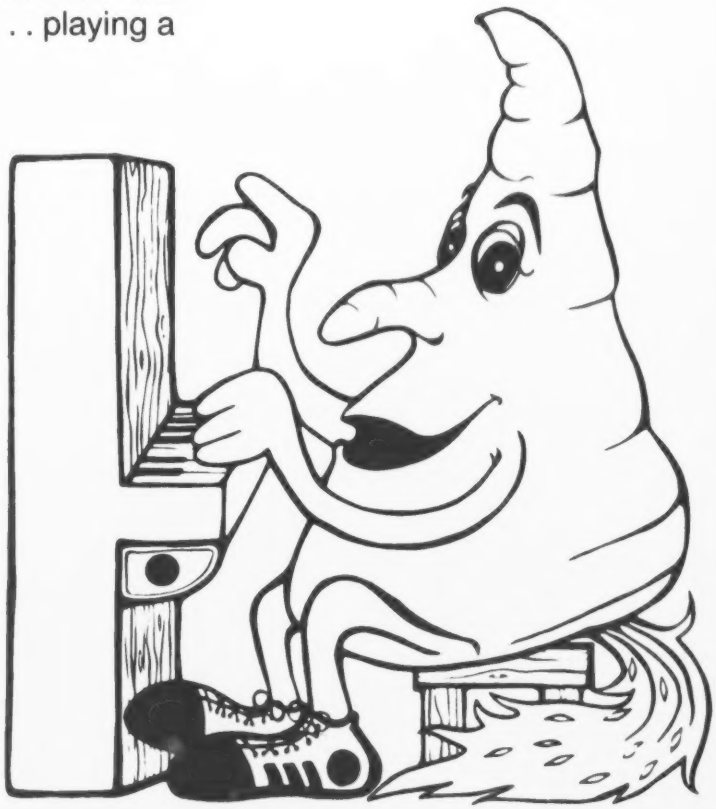
"I wonder if it's going to open," said Puddles, looking at the door of the magic cupboard. When the door opened, Grandma was very surprised at what she saw. "Well, I never! There is a carrot . . . playing a piano!" she said.

"He's going to sing," said Puddles.

How about some raisins
When you feel kinda low?
Snap a stick of celery
And away you go!

When you need a snack
Make the snack work for you.
'Cause food peps you up
If you choose what you chew.

Come on and be a chooser like me!



Carrot

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

"You've got some dandy ideas for snacks there, Mr. Carrot," said Grandma.

"Well," said Mr. Carrot, "I think it's pretty important to have good snacks, and that's why I sing about them, because . . ."

When you need a snack
Make the snack work for you
"Cause food peps you up
If you choose what you chew!

"That's a catchy little number! Let's sing it together," said Grandma.

"And the kids, too?" asked Puddles.

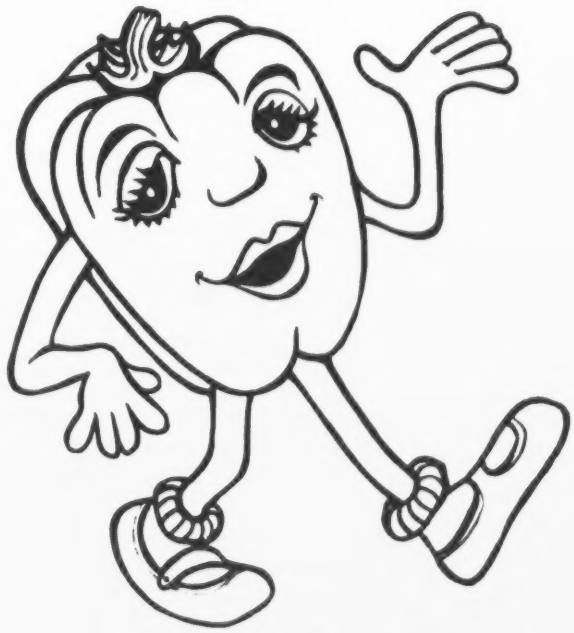
"Yes. Everybody sing! I love it!" said Grandma

"A-one," said Puddles, "A-two. . ."

Open up an orange
You can dribble and drool.
Green peppers or carrots
Are yummy and cool.

How about some raisins
when you feel kinda low?
Snap a stick of celery
And away you go!

When you need a snack
Make the snack work for you.
Cause food peps you up
If you choose what you chew.



Green Pepper

Story and lyrics by
Noreen Young, Julie Voyer, and Martha Mapes

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

Snacks Do Count

Dear Parent,

The first food choices that children often make are for snacks. In the next few weeks your child will become familiar with nutritious snacks and will examine factors that influence choices.

Many snack foods are high in sugar, fat, and salt and contain few nutrients. Calcium, iron, vitamin A, and vitamin C are nutrients that are often lacking in a child's diet. Carefully choosing snacks can ensure that these nutrient needs are met.

We hope you will encourage your child to follow our slogan and to Be a Choosy Chewer and to make better snack choices at home.

To make snacks count:

- Provide crisp raw vegetables such as carrots, broccoli, and green peppers with cottage cheese-yogurt dip.
- Offer light beverages such as fruit juices or water as well as low-fat milk.
- Avoid foods high in sugar such as candy, soft drinks, and rich pastries.
- Avoid foods high in salt.
- Offer juicy oranges and other fruit.

Snack Dip

1/2 cup cottage cheese
1/4 cup yogurt
1/2 teaspoon onion
1/8 teaspoon dill weed
1/16 teaspoon celery seed
sprinkle of salt

1. Mix all ingredients together in a bowl.
2. Cover and refrigerate overnight.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

Snacks Do Count

Estimados Padres,

Las primeras decisiones sobre alimentos que los niños hacen son sobre las meriendas. En las próximas semanas su niño se familiarizará con meriendas nutritivas y examinará aquellos factores que influyen en ésto.

Muchas meriendas son alto en azúcar, grasa y sal y contienen pocos nutrientes. Calcio, hierro, vitamina A y C son nutrientes que con frequencia carecen en la dieta de los niños. Al escoger meriendas nutritivas puede usted estar seguro que estos nutrientes se adquieran.

Esperamos que usted ayude a su niño a seguir nuestro lema de: "Escoger antes de comer" y de hacer mejores decisiones en su casa.

Para que las meriendas cuenten

—Provea hortalizas crudas como las zanahorias, el brécol y pimientos verdes con salsa de requesón y "yogurt."

—Ofrecele bebidas livianas como los jugos de fruta, o aqua al iqual que leche baja en grasa.

—Evite alimentos altos en azúcar, bebidas carbonatados y pastelerías dulces.

—Evite alimentos altos en sal.

—Ofrecza naranjas (chinas) jugosas y otras frutas.

Salsa Para Meriendas

1/2 taza requesón
1/4 taza "yogurt"
1/2 cdta cebolla picada
1/8 cdta "dill weed"
1/16 cdta apio picado
Sal a gusto

1. Mezcle todos los ingredientes en un recipiente hondo.
2. Cubra y ponga en el refrigerador.

Be a Choosy Chewer

Name _____

You **choose** when you pick one snack instead of another.

You **chew** when you bite food into small pieces.

A **snack** is a small amount of food eaten between meals.

Choosy Chewers pick snacks that help them grow and feel great.

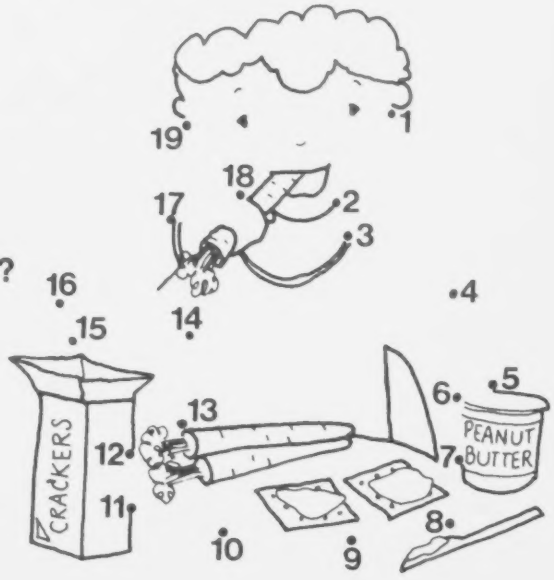
Put an **X** in front of the good snacks for sale in this vending machine.

Snacks for Sale 25¢

___ **marshmallows**	___ **candy bar**	___ **carrot sticks**
___ **apple**	___ **cola**	___ **caramels**
___ **peanut butter on crackers**	___ **pizza**	___ **potato chips**

Which one is the **Choosy Chewer?**

Which one are you?



Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

D **For Activities 2, 4, and 12**

Snacks I Can Make

When I am hungry—

Fruit Kebabs

Canned apricots
Melon cubes
Grapes
Unpeeled apple wedges
Canned peaches
Banana slices
Whole strawberries
Pineapple cubes

Narrow plastic straws, coffee stirrers, and apple sticks make good skewers for kebabs.

Dippers

Broccoli, cabbage wedges, carrot curls, cauliflower, celery, cherry tomatoes, cucumber slices, green pepper rings, lettuce wedges, mushrooms, radishes, tomato wedges, zucchini slices.

Snack Dip

1/2 cup cottage cheese
1/4 cup yogurt
1/2 teaspoon onion
1/8 teaspoon dill weed
1/16 teaspoon celery seed
Sprinkle of salt

1. Mix all ingredients together in a bowl.
2. Cover and refrigerate overnight.
3. Serve with dippers.

Celery Stuffers

Peanut butter, tuna fish, cottage cheese, softened cheese, egg salad.

Broccoli Pancakes

Recipe
10 ounces of frozen chopped broccoli
½ cup pancake or biscuit mix
1 egg
¼ teaspoon salt
oil for frying

Make broccoli snack pancakes about this size.

Cook broccoli in 1/2 cup boiling water for 5 minutes. Drain well.
Beat egg in a large bowl. Add broccoli, pancake mix, and salt to egg. Mix well. Drop by spoonfuls into hot oil in frying pan.
Cook 2-3 minutes on each side.

Cabbage Roll-up

Wash cabbage leaves. Spread leaves with peanut butter. Roll leaves and secure with toothpick.
Chill.

Puddles Face Sandwich

4 green pepper strips
3 carrot slices
6 raisins

Spread slice of whole-wheat or enriched bread with peanut butter.

Make:

Green pepper strip ears.
Carrot slice eyes and nose.
Raisin mouth and eyes.

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985.

Snacks I Can Make

When I am thirsty—

Grandma Shaker

6-ounce can grape juice concentrate
2 cups water
ice
1/2 cup nonfat dry milk

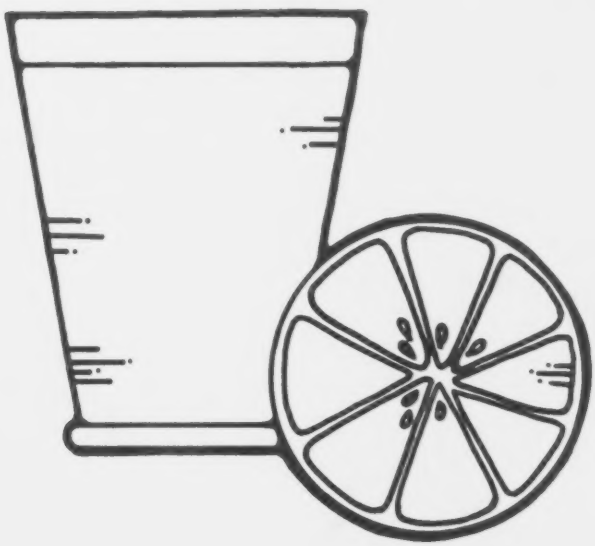
Combine all ingredients in a blender.

Or combine in a quart jar with a tight screw top and shake virgorously.
For a different flavor use a 6-ounce can of orange juice concentrate.

Orange-Banana Shake

2 cups orange juice
2 cups plain yogurt
2 bananas

Blend 1 to 2 minutes until smooth. Add cinnamon to taste.



Witch's Brew

Pour into a bowl:
2 cups orange juice
1 1/2 cups lemonade
4 cups apple cider

While you are stirring, chant in a a deep voice:
"Apple, Dandy, Fiddle-Foo
Happy, Zappy Witch's Brew"

Spiced Milk

1 quart liquid nonfat milk
1/2 teaspoon cinnamon
1/2 teaspoon nutmeg
4 teaspoons sugar

Blend ingredients. Chill for at least 1 hour and serve.

Orange Nog

6-ounce can orange juice concentrate
1/2 cup nonfat dry milk
2 cups water
1/2 teaspoon vanilla
Dash nutmeg

Combine all ingredients except nutmeg. Beat only until juice concentrate and powdered milk are dissolved. Serve at once.
Sprinkle with nutmeg.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

E For Activities 2 and 7

A Good Snack

Name _____

Title of recipe _____

Food	Amount	Equipment

Directions:

_____

_____

_____

_____

_____

_____

_____

_____

What fruit or vegetable was used to make this snack? Draw a picture. Color it.

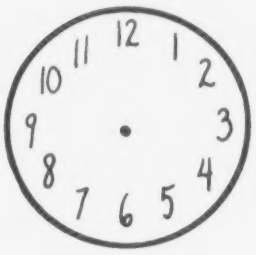
Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

What I Ate for Meals and Snacks

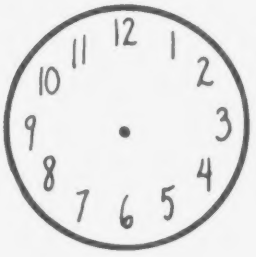
Name _____

Date _____

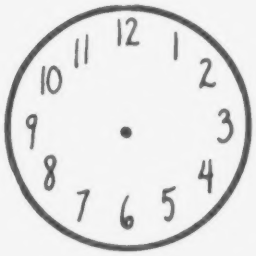
breakfast



lunch

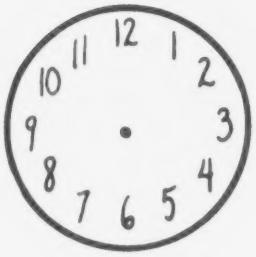


dinner



---

snack



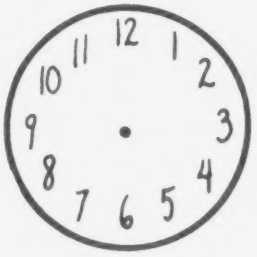
What I ate:

_____

_____

_____

snack



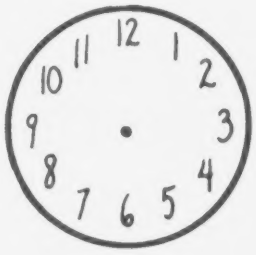
What I ate:

_____

_____

_____

snack



What I ate:

_____

_____

_____

Turn this paper over. Draw pictures of the snacks you ate. Color the pictures.

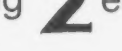
Nutrition Comes Alive, Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

G For Activity 6

Magic Cupboard Rebus

Adapted from the Magic Cupboard by Noreen Young, Julie Voyer, and Martha Mapes.

This is Puddles. This is Grandma. And this is their story.

" 'm hungry," told .
" want something  eat. Something sweet would n !"

Suddenly the of the magic flew o . "Hey! It's the magic again," said .

"And this it's a on a beach!" said . "And he is going to sing!"

Under the there is lots t is sweet
Energy that .
Come a little closer and lis carefully.
U get your sweetness naturally.

is sweet, so are ,
and and .
Your great with , too.
Do forget w ever U do!

Choose w U chew!

SEE OTHER SIDE

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

"Oh, that , !" said .
"Mr. , I have a ?."

"W did U mean w U said-- 'U
get Ur sweetness naturally'?"
" ," said Mr. , " sweet."
T made to .
" ," continued Mr. , " grows under
the . When U eat it, U fill Urself full of natural
sweetness, full of ."
"T 's ing a choosy chewer!" said .

After thinking about all the k nds of they could eat,
and made a choice.

"I choose a ," said .

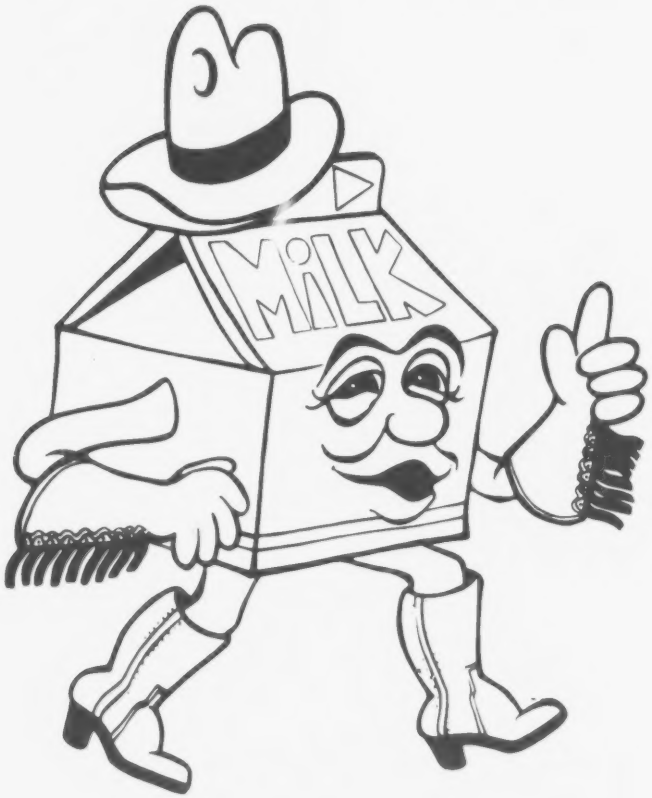
"And I choose an ," said .

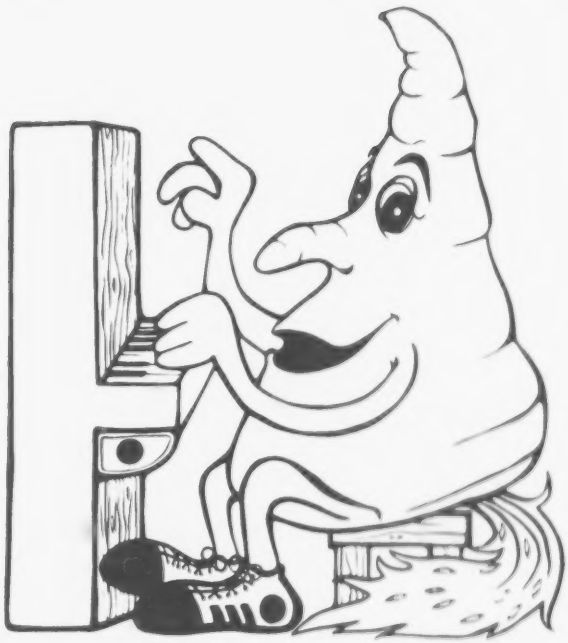
W do U choose?

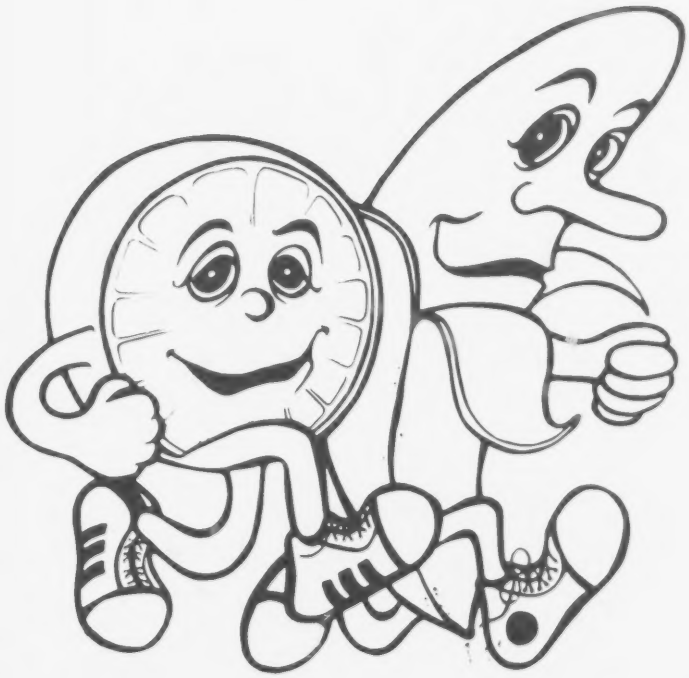
Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

Two heads for tracing to make puppets or decals.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985





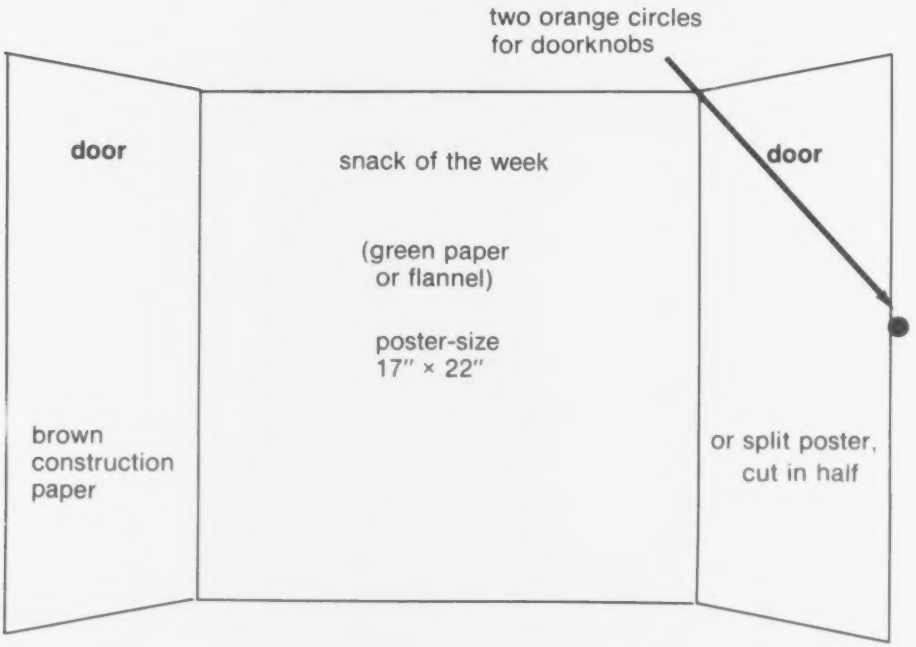


Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

Art Ideas

Snack of the Week Cupboard

A display for your bulletin board



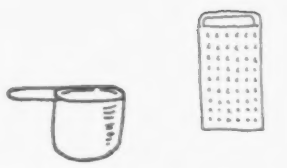
Snack Stand

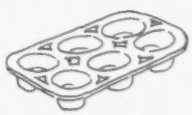
Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

Whole-Grain Power Recipes

Carrot Cupcakes
(makes 2 dozen)

Equipment:





Grater
Sifter
Mixer or large spoon
Measuring cup
Measuring spoons
Bowls
Muffin tins

Ingredients:

2 cups grated carrots
1 cup all-purpose flour
1 1/2 teaspoons baking powder
1/2 teaspoon baking soda
1 1/4 teaspoons cinnamon
1/2 teaspoon salt
1 cup whole-wheat flour
1 cup brown sugar
1 cup vegetable oil
2 eggs

Directions:

1. Grate carrots. Use a small grater, laying flat on wax paper.
2. Sift all-purpose flour, baking powder, baking soda, cinnamon, and salt together into a bowl.
3. Stir in whole-wheat flour.
4. In a large mixing bowl, beat sugar, oil, and eggs for 2 minutes.
5. Add carrots. Mix well.
6. Add flour mixture. Mix well.
7. Pour into greased muffin tins or line tins with paper cups.
8. Bake at 350° for 20 minutes.

Granola

Ingredients:

2 cups quick rolled oats
1/2 cup wheat germ
1/2 teaspoon cinnamon
1/4 cup honey
2 tablespoons vegetable oil
1 cup raisins
1 cup coconut
1/2 cup sunflower seeds

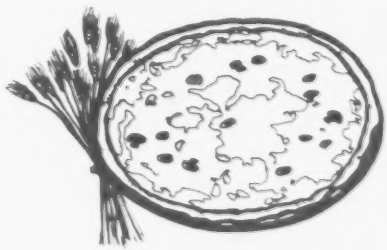
Directions:

1. Combine oats, wheat germ, and cinnamon.
2. Add honey and oil. Mix well.
3. Spread in a shallow pan.
4. Bake at 350° F for 10 minutes, stirring once or twice.
5. Remove from oven and add raisins, coconut, and sunflower seeds. Mix.

Pizza Bites

Ingredients:

2 tablespoons tomato sauce
1 English muffin
1 tablespoon onion, chopped
2 tablespoons green pepper, chopped
2 tablespoons mozzarella or American cheese, grated



Equipment:

Sharp knife
Grater
Spoon

Directions:

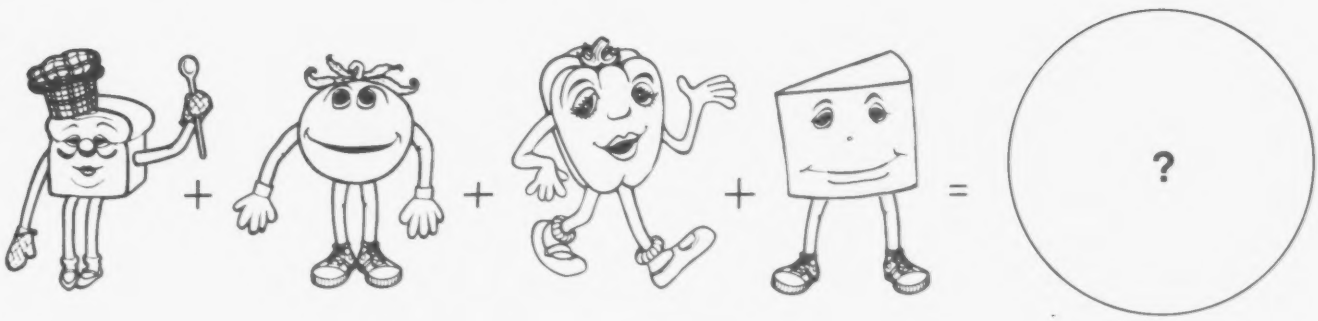
1. Spread tomato sauce on English muffin.
2. Top with onion and green pepper.
3. Sprinkle with cheese.
4. Bake at 425° for 10 minutes.

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985

Nutrient Addition

Name _____

Riddle: In what favorite food can you combine



bread dough + tomato sauce + green pepper + cheese = _____

protein

8 units in cheese
+
____ units in bread dough
11 units

calcium

207 units in cheese
+
24 units in bread
units

vitamin A

277 units in tomato
+
77 units in green pepper
units

vitamin C

23 units in green pepper
+
17 units in tomato
units

Nutrients add up when you combine nutritious foods.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

It's a Habit

Name _____

The Name Game

At a signal from your teacher—

1. Turn this paper over. Write your name as many times as you can in one minute. Count how many times you wrote your name _____ .

2. Turn this paper over. Write your name **backward** as many times as you can in one minute. Count how many times you wrote your name _____ .

Which was easier to do? Why?

Familiar Foods

Eating two foods together is a food habit. Circle the pairs of foods that you eat.

bread and butter

rice and beans

pancakes and syrup

cake and ice cream

greens and cornbread

bagel and cream cheese

milk and cookies

peanut butter and jelly

spaghetti and meatballs

borscht and dumplings

oatcakes and cheese

Good Snack Choices

Choosing healthy snacks can become a habit. Complete each sentence with a good snack choice.

candy bar
bag of peanuts
carrot
cookie
orange juice
cola
milk

Sue was thirsty. She decided to get a drink of _____ .

Tom was hungry after school. He decided to eat a _____ .

Alan put his money in the vending machine. He got a _____ .

Anne stopped at a fast-food restaurant after school. She bought _____ to drink.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985

L For Activity 9

SNACK RECORD

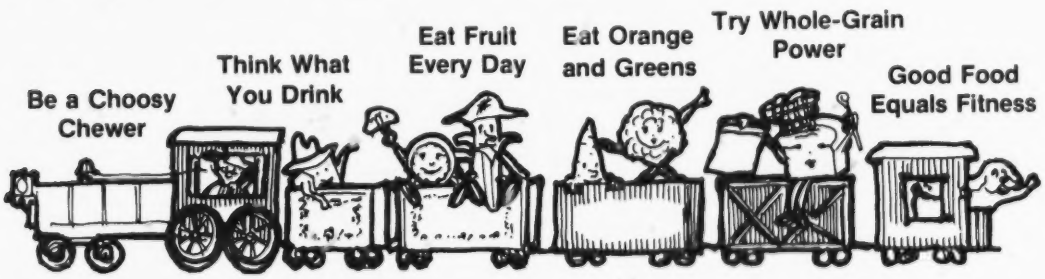
Name _____

List Foods

	Think What You Drink	Eat Fruit Every Day	Eat Yellows and Greens	Try Whole-Grain Power
	School I drank	School I ate	School I ate	School I ate
1.				
2.				
3.				
	Home I chose	Home I chose	Home I chose	Home I chose
4.				
5.				
6.				
	Eating Out I ordered	Eating Out I ordered	Eating Out I ordered	Eating Out I ordered
7.				
8.				
9.				
Total				

24 points or more receives

I've Joined the Good Snack Train



Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

M

What Makes The Difference?

Name _____

Give me lots of sugar goodies
and (GULP) a soda pop.
I'm a Junk Food Monster,
And I just can't stop.
gulp, gulp, gulp, gulp!

Gooey cakes and candy
I eat all day.
My teeth are just fine
And they're here to stay.
plink, plink, plink, plink!

Do the math problems. Check your answers against the Secret Code. With correct math answers you can fill in the blanks with missing letters. You will discover the snacking messages.

SECRET CODE	
6 = d	12 = b
7 = i	15 = c
8 = s	17 = a
9 = r	19 = m

12	10	2
−4	+5	+13
7	9	11
+0	+8	+6
14	8	4
+1	−2	+3
		20
		−13

____ t ____ ____ ky ____ ____ n ____ y can cause ____ ____ v ____ t ____ es.

11	6
+8	+6
15	18
−8	−9
	10
	−2

I drink ____ ____ lk to make my teeth strong.

I ____ ____ u ____ h my teeth after eating sticky snacks.

Snacks I like to eat that are not sticky

_____

_____

_____

_____

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

Fast-Food Choices

Name _____

1. Circle the foods you usually choose from this menu

milk	soda pop / cola
hamburger	fish sticks
french fries	potato chips
tossed salad	apple pie
milk shake	biscuit
fried chicken	coleslaw (cabbage salad)

2. Read this song about take-out food

Add or Take-Away Song

We're going to have take-out today.
Two "number fives" to go, please.
Doesn't that look yummy.
But wait! There's something wrong . . .
We can fix it, Grandma, with
The add or take-away song.
Add a crunchy salad;
Take away soda pop.
Add some milk or milk shake, too.
It's smart to make a swap.
Because hamburgers like salad,
And milk's fine company.
Make these your friends and you will get
Your take-out energy.

3. The song tells you to add two foods.

List:

_____

_____

Star them on the menu.

4. What food should you take away or subtract?

_____

Cross it out on the menu.

Finish these sentences:

5. Adding milk is a good idea because

_____

6. Tossed salad and cole-slaw have a lot of

_____

7. My fast-food choice can be better if I

_____

_____

Calcium in milk builds strong bones and teeth.

Orange and green vegetables in salad help growth, eyesight, and healthy skin.

Soft drinks contain only calories and no nutrients.

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985

The Magic Cupboard,
Chapter 3

"Do you think it will open now?" said Puddles, looking at the door of the magic cupboard.

"Well, I sure hope so," said Grandma, "because I'm thirsty."

"Listen!" said Puddles. "What's that? The cupboard door is opening!"

Grandma blinked and said, "I can't believe my eyes. There is a desert inside!"

"And here comes a milk carton . . . wearing cowboy boots!" cried Puddles,"and singing a song."

If you want a real drink for a real thirst,
just a-listen to me!

Now milk is a natural drink. Ya-hoo!
Tomato juice tickles my toes.
Apple juice sparkles.
Orange juice gurgles.
And water's real good and it's free.
Naturally-eee.

Think what you drink naturally. Yee-haw!

"He's pretty smart for a half-pint," said Puddles.

"Oh, the cupboard is closing," said Grandma. She looked a little sad because she liked the magic cupboard so much. But then she had a good idea. "Puddles, why don't you teach the song to the kids, while I pour myself a nice cool glass of milk?"

"I love to sing," said Puddles.

"Sing it right, so they can sing it, too," said Grandma.

"Don't forget the ye-haw," said Puddles.

Repeat song together.

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985

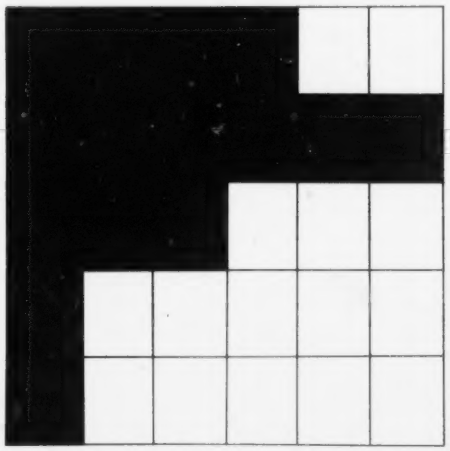
O

Think What You Drink!

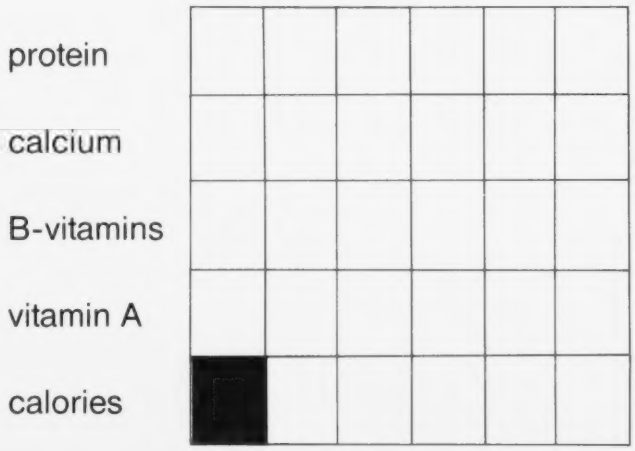
Name _____

Compare the two charts below. One shows the nutrients and calories in milk. The other shows the nutrients and calories in a soft drink. Which one would a choosy chewer choose?

Milk (1 cup)



Soft drink (12-ounce can)



Answer these questions.

1. Which drink has more nutrients? _____
2. What nutrients are in both drinks? _____
3. Why is it important to choose drinks with nutrients? _____

_____

4. What are two other good drink choices?

   a. _____

   b. _____

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985.

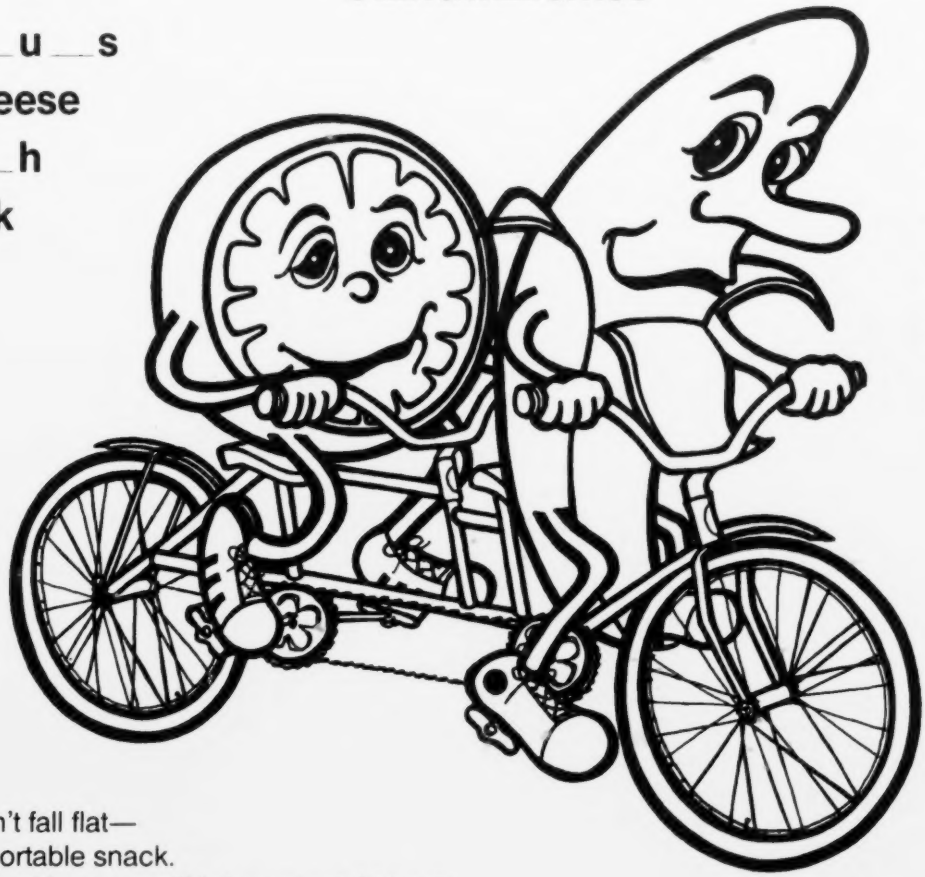
Portable Snacks

Name _____

You can take snacks wherever you go. Fill in the missing letters to name good snacks to carry along.

a___le ___uice
to___a___o ___uice
gr___n pepp___
s___raw___erries

pea___u___s
___eese
pea___h
m___lk



b___n___n___
o___an___e
p___pc___rn
c___er___ies
apri___ot

Hey! Don't fall flat—
Take a portable snack.
Orange and banana will bring you right back.

Bikers can peel us for fast energy—
So when you need to brake,

Break for us! Oranges, Bananas!

Nutrition Comes Alive, Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University. 1985.

The Magic Cupboard,
Chapter 4

"Hey Gran. What's with the jogging suit?"

"You like it, Puddles?" asked Grandma. "I'm exercising because it's fun!"

"I just figured out something fantastic!" said Puddles.

"What is it?" asked Grandma. "It sounds awfully important."

"It is important!" said Puddles. "I just figured out that good food equals fitness!"

"Puddles, you've got it!" cried Grandma.

Good food equals fitness
Keeps you on the go—
Climbing, skipping, jumping high—
Food really makes you grow.

You don't want to be last—
Be bright!
If you want to run fast—
Eat right.

Good food equals fitness.
Yes, it is quite true.
If you want to be the best
Just choose what you should chew.

"Puddles?" asked Grandma.

"Yes, Grandma," said Puddles.

Grandma looked at Puddles, smiled, and said, "You're brilliant!"

"Aw shucks!" said Puddles, ". . . but if you say so! hey! heh!"

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University. 1985.

The Flexible Four

1. **Wall push-ups**

   Stand 12 inches from a wall with toes pointing forward, heels on the floor. Move right leg backward 12 inches. Lean forward and hold for 5 counts. Relax.

2. **Forward stretch**

   Sit with legs straight. Reach forward above and touch toes. Hold for 5 counts. Relax.

3. **Knee pull**

   Lie on back, pull knee to chest. Hold for 5 counts. Do the same for the other knee. Relax.

4. **Butterfly**

   Sit with feet together, knees bent. Push knees out with hands or arms. Hold for 5 counts. Relax.

It is not easy to do every stretch. Try to get better each week. Take out your fitness chart and keep a record of your progress.

Nutrition Comes Alive, Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

R **For Activity 17 and 20**

Fitness Record

Name _____

Do two exercises in each group A, B, C, and D at least 4 or 5 times a week. Check each activity when you complete it.

	Days	1	2	3	4	5	6	7	
A. Warm-up Exercise									
Pinwheels									
Swaying									
Arm Circles									
Stretch High									
Stretch Low									
B. Exercise to Music									
Flexible four									
1. Wall push-ups									
2. Forward Stretch									
3. Knee pull									
4. Butterfly									
C. At school—Improvement in time									
Balance on one foot									
Run around playground									
Jump rope—no misses									
Jumping jacks									
Follow your Exercise Trail									
D. At Home									
Walking briskly									
Bicycling									
Swimming									
Took a family hike									
Double dutch jump rope									
Dancing, Dance aerobics									
Other _____									
	Totals								

I jump
I jump
I really
wish
I'd jump
and jump
and never
miss
Good food
is one
Being fit
is two
Now I go
until
I'm through
1, 2
3, 4
5, 6
7, 8

Completed Resolution ☐

Rating: 24—You're on the Right Track
32—Good
40—Excellent

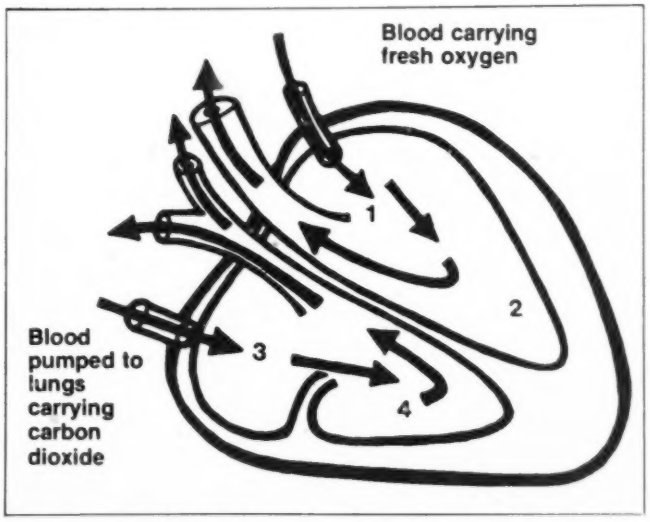
Be Fit Feel Good Badge
for all who reach 32!

Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences. Cornell University. 1985

I Have the Beat!

Name _____

My Heart



Your heart is a muscle that pumps blood through your body. Look at the diagram of your heart. It has four parts. Blood carries fresh oxygen from parts 1 and 2 to the rest of your body. Blood returns to the heart bringing carbon dioxide into part 3. The blood leaves part 4 taking the carbon dioxide to the lungs. When you breathe out (exhale), the carbon dioxide leaves your body. Use a red crayon or pencil to trace the path of your blood in the diagram.

Taking My Pulse

Each heartbeat pushes blood through your body. This makes your blood vessels move. You can feel your blood vessels move when you take your pulse.

You can feel your pulse best at the blood vessels called arteries. The artery in the neck is easy to find. Doctors and nurses often use the artery in the wrist.

Procedure

1. Use a clock or watch with a second hand.
2. Place your thumb and finger on each side of your windpipe below the chin.
3. Count beats for 15 seconds. These beats are pulses.
4. Record your pulse in the spaces at the right.

My pulse:

_____ sitting down at rest

_____ lying down at rest

_____ after eating a meal

_____ after exercise

Your pulse changes with your age, size, and physical condition. Good food and exercise improve your physical condition.

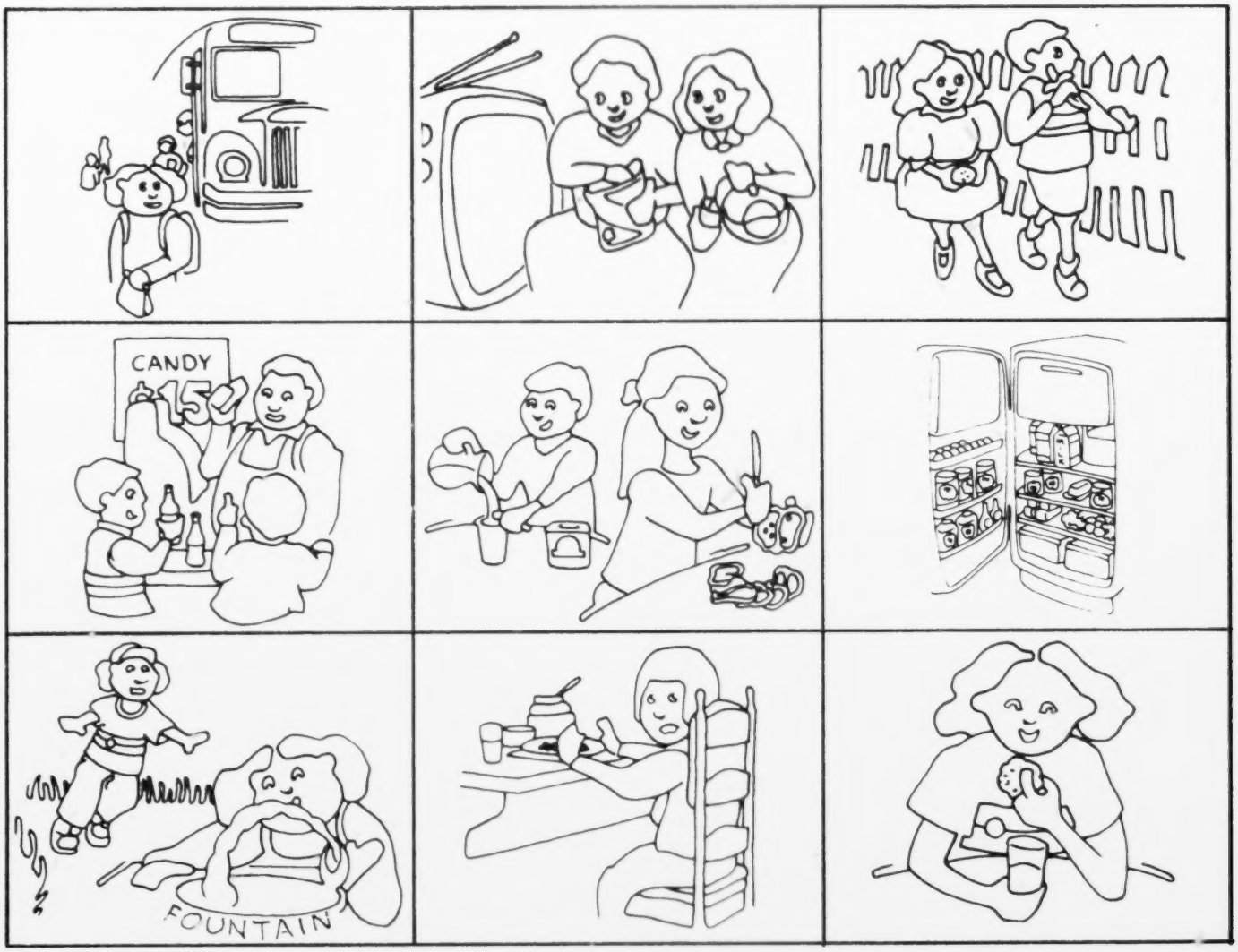
Adapted from ***Biology Experiments for Chidren*** by Hanauer.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

T **For Activity 23**

Name _____

Tell a story about snacking and exercising. Cut out the story pictures below. Pick four or five pictures and place them in order so they tell a story. Write sentences to go with each picture.



Nutrition Comes Alive. Level 2. Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

Dear Parent,

Our second grade class has been actively learning about the importance of good snack habits as well as the need for improved exercise habits. Because we need to develop heart health during the elementary years we have adopted two slogans:

Be a Choosy Chewer
Food and Fitness Go Hand in Hand

Two characters have helped this unit be fun and lively. A modern Grandma Hubbard and her dog, Puddles, have introduced a "Magic Cupboard" of good snacks, and they have gone jogging to illustrate the need to increase vigorous exercise.

Consider taking some steps at home to encourage healthful routines:

—Provide fruits, vegetables, milk, and whole-grain products that your child can use for snacks.

—Help your child to be physically active.

—Adopt family activities that help everyone enjoy more vigorous exercise. Find something in your own community that everyone can do such as

- Walk instead of taking the car
- Go backpacking
- Enjoy a swimming night
- Play badminton
- Exercise to music.

—When you eat at fast-food restaurants stress milk instead of soft drinks.

—Take advantage of salad bars.

—Select nutritious foods from vending machines and avoid high-fat, high-sugar foods.

Studies show that children often obtain 25 to 34 percent of their daily calories from snacks. The *quality* of the snacks they eat is therefore extremely important. Foods rich in vitamins A (green and yellow fruits and vegetables) and vitamin C (citrus fruits, cabbage) and calcium (yogurt, low-fat milk), and iron (lean meats, whole grains) are often missing from American diets and need special attention.

According to the National Children and Youth Fitness Study, our American youth are not very fit. Approximately half of the children do not engage in enough physical activity to maintain heart health. A significant increase in the percentage of body fat in young people is another concern. More vigorous exercise at least three times a week for 20 to 30 minutes is a step in the right direction.

Nutrition Comes Alive, Level 2, Be a Choosy Chewer. Developed by the Department of Nutritional Sciences, Cornell University, 1985.

Estimado Padre,

Nuestra clase de segundo grado a estado aprendiendo sobre la importancia de buenas prácticas en escoger meriendas. Así como la necesidad de mejorar nuestros hábitos de ejercicios como es importante desarrollar un corazón saludable durante los años escolares, hemos adoptado dos temas:

Escoger antes de comer
Alimentos y salud mano a mano

Dos animadas figuras han ayudado a mantener estas clases divertidas y animadas. Una Abuelita Hubbard moderna y su perro, Puddles han introducido una ALACENA MAGICA de buenas meriendas y se han ido "jogging" para illustrar la necesidad de aumentar ejercicios vigorosos.

Considere tomar algunos pasos en su hogar para formentar rutinas saludables:

—Provea frutas, hortalizas, leche y alimentos de grano íntegro que su niño pueda usar para merendar.

—Ayude a su niño a mantenerse activo físicamente.

—Adopte actividades en familia que ayuden a todos a disfrutar de ejercicios más vigorosos. Encuentre alguna actividad que todos puedan hacer juntos como:

- Caminar en vez de usar el carro
- Hacer caminatas en el campo
- Escoger una noche para ir a nadar en grupo
- Jugar bádminton
- Hacer ejercicios a tiempo de música

—Cuando coman en restaurantes de comida ligera escoger leche en vez de bebidas carbonatadas

—Evite alimentos altos en grasa y azúcar y seleccionen alimentos nutritivos en las máquinas de venta.

Estudios han demostrado que los niños obtienen 25 a 34% de sus calorias diarias de las meriendas. Por lo tanto la calidad de las meriendas que ellos escogen son muy importantes. Alimentos altos en vitamina A (frutas y hortalizas verdes y naranjadas) y vitamina C (frutas citrosas, repollo) y en calcio ("yogurt," leche baja en grasa), y hierro (carne sin grasa, cereales integros), frecuentemente faltan en las dietas Americanas y requieren atención especial.

De acuerdo con la "National Children y Youth Fitness Study," nuestra juventud Americana no está en muy buena forma. Aproximádamente la mitad de los niños no ocupa su tiempo en suficiente actividad física para mantener un corazón saludable. Un aumento significativo en el porcentaje de grasa en el cuerpo de gente joven es otro preocupación.

Ejercicios más vigorosos por lo menos 3 veces a la semana de 20 a 30 minutos es un paso más en la dirección correcta.